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ERCB
Energy Resources Conservation Board
640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter IL 89-11

18 August 1989

TO: All Oil and Gas Operators
All Crude Oil Shippers
All Crude Oil Pipeline Operators

MRL ORDER

As part of implementing the revisions to the Modified Proration Plan outlined in Informational Letters IL 89-8 and IL 89-9, the Board will replace the IP Order with a monthly MRL Order, effective 1 October 1989. The Board will issue its first MRL Order (No. 1) for the month of October 1989 by the 28th of September. The preamble and a sample page of the MRL Order are attached to illustrate the new format.

With the MRL Order reverting to pre-IP Order timing, no IP or MRL Order, and no Field and Pool Orders will be issued in August. As an introduction to the new MRL Order the Board has prepared and made available from its Information Services Section, a sample MRL Order based on September's IP Order information. This is intended for illustrative purposes only, to assist operators in becoming familiar with the new report. It will not be used by the Board for September allowables or surveillance.

As a result of the revision in timing, Informational Letter IL 87-11 is hereby rescinded effective 1 October 1989. This IL provided operators with the option of applying to the Board to have increases in a pool MRL recognized one month earlier than normal under the IP Order timing.

The major changes or significant retentions reflected in the MRL Order are:

- The Initial Production allocation factor is terminated.

- The light and medium (L-M) gravity pools on good production practice (GPP) will no longer be carried separately but will be incorporated in with the other L-M pools.

- The Index to the Special Provisions has been deleted and Special Provision clauses now appear in column 7 of Appendix I.

- Appendices II and III have been consolidated.

- The MRL Order will be made available to industry by the 28th of the month preceding the Order's effective date, rather than the second preceding month.
- The companion to the IP Order, the "Oil Allocation Data" Report, will no longer be issued.
- Decisions on pool delineation, reserves, MRLs, gas-oil ratio penalty relief, etc. that are made by the middle of a month will be reflected in the next month's MRL Order.
- Requests for Enhanced Recovery Recognition must be received at the Board by the 7th of the month preceding the effective date.
- In the case of pools that have been assigned inflated or artificially high MRLs, where rate controls were not deemed necessary for conservation purposes (ie. inflated MRLs were only assigned because the IP Order required one), the Board will endeavour to place these pools on GPP effective 1 October 1989. The Board will issue an IL with regard to these pools in the near future.
- Gas-oil ratio (GOR) penalties will continue to be calculated based on production from the third preceding month.
- The actual GOR penalty base is now being shown rather than the base divided by 10.
- The water-oil ratio (WOR) penalty base has been deleted from Appendix I.

The Board wishes to emphasize that many factors are considered in establishing the MRL rates appearing in columns 4 and 5 of Appendix I and the Special Provisions Section of Appendix II. The per hectare MRL is the format used in Appendix I to administer the established MRL in a pool or a pool type, and suspension or reactivation of wells, or the addition of new wells within a pool, may or may not impact this per hectare MRL depending on the circumstances associated with the establishment of the MRL. Further, it should be understood that the MRL within a pool is not redistributed because of well incapability.

Questions related to the MRL Order should be directed to Andy Burrowes at 297-8566 or Gord Kimber at 297-8557 of the Oil Department. Questions related to allowable records should be directed to the Accounting Department at 297-8345.

N. G. Berndtsson, P.Eng.
Manager
Oil Department

THE PROVINCE OF ALBERTA

OIL AND GAS CONSERVATION ACT

ENERGY RESOURCES CONSERVATION BOARD

MRL ORDER NO.

WHEREAS the Modified Proration Plan (MPP) has been revised and an MRL Order is required as described in Informational Letters IL 89-8 and IL 89-11.

THEREFORE, the Energy Resources Conservation Board, pursuant to the Oil and Gas Conservation Act, being chapter O-5 of the Revised Statutes of Alberta, 1980, hereby orders as follows:

1. (1) The monthly oil base maximum rate limitation (base MRL) in a conventional crude oil pool designated by Board order and named in Appendix I to this order shall be,

   (a) for a well, equal to the greater of

      (i) the basic well rate as set out in column 3 of Appendix I, or

      (ii) the product of the productive area of the well and the base MRL per hectare for the pool type as set out in columns 4 and 5 of Appendix I,

   (b) for a block or project, equal to the greater of

      (i) the total basic well rate as set out in the form "Appendix to PSU, Block or Project Approval" multiplied by the number of days in the month, or

      (ii) the product of the total productive area set out in the aforesaid form and the base MRL per hectare for the pool type as set out in columns 4 and 5 of Appendix I,

or as otherwise provided for in Appendix II to this order.

(2) The monthly MRL for a well, block or project named in clause 8 of Appendix II to this order shall be the product of the off-target penalty factor* and the base MRL prescribed in accordance with subclause (1).

(3) Notwithstanding subclause (2) hereof, a monthly base MRL prescribed under subclause (1) shall be reduced through multiplication by the GOR penalty base specified in column 6 of Appendix I, and any applicable provision in Appendix II or other Board orders or approvals held by operators of the pool.

2. (1) A well completed in a conventional crude oil pool not referred to elsewhere in this order shall have a base MRL per month, determined using parameters set by the Board following application (Board Form O-38) by the operator and approval by the Board, equal to the greater of

(a) the product of the basic well rate per day and the number of days in the month, or

(b) the base MRL.

(2) The base MRL, determined in accordance with subclause (1), shall be reduced through multiplication by any applicable penalty factors.

General

3. Where the base MRL of a well, block or project is subject to a gas-oil ratio penalty factor**, the penalty factor shall be determined on the basis of production in the third last preceding month.

4. (1) When a new well commences production from a pool, it may produce at a new well rate that is the greater of its base MRL or 20 cubic metres per day for the first four producing months within one year of its on-production date, unless the well

(a) is in a block or project,

(b) replaces a well which previously produced from the drilling spacing unit,

(c) is shut down by Board order, or

(d) is prohibited from producing,

and the new well shall be subject to other conditions set out in IL 87-9.

(2) Where the base MRL of a well referred to in subclause (1) is subject to a gas-oil ratio, the penalty shall not be calculated or applied until the fifth month during which the well has reported production.

5. Individual wells or groups of wells identified in clause 14 of Appendix II to this order are subject to selective application of maximum rate limitations.

6. A basic well rate established by this order is subject to off-target and gas-oil ratio penalties; however, the off-target penalty will not normally reduce the basic well rate to less than 5.0 cubic metres per day unless so directed by the Board pursuant to IL 83-12.

7. A base MRL established by this order for a well is not normally subject to off-target penalty when the well is the only well producing in a Board-designated pool in accordance with IL 82-14.

8. Wells in pools on good production practice (GPP)*** may be subject to provisions specified in Appendix II to this order or other Board orders or approvals held by operators of the pools.

9. This order comes into force on 1 October 1989.

MADE at the City of Calgary, in the Province of Alberta, this day of ____________, 1989.

ENERGY RESOURCES CONSERVATION BOARD

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* In accordance with section 4.070 and Part 10 of the Oil and Gas Conservation Regulations, it is the responsibility of the operator of a well to assess any applicable off-target penalty factor to the base MRL of a well, or production entity, even if the penalty is not prescribed in clause 8 of Appendix II to this order.

** The base by which the GOR penalty factor is determined is set out in the Oil and Gas Conservation Regulations, section 10.050.

*** GPP, as defined in the Oil and Gas Conservation Regulations, section 1.020(2)9, may be rescinded by the Board where conditions change substantially in a pool, or where GPP is no longer considered appropriate.

APPENDIX I TO MRL ORDER NO.

NOTES:

Column 1:	Field/Pool name - self-explanatory.
Column 2:	Codes - field, pool and type codes as defined by the Board classifications.
Column 3:	The basic well rate shall be in accordance with the attachment to Board Informational Letter IL 83-12. This rate is multiplied by the number of days in the month to give the basic well rate on a monthly basis.
Column 4:	The MRL, shown on a daily basis, is equal to the monthly MRL (column 5) divided by the number of days in the month.
Column 5:	The MRL per hectare for a pool type is the maximum monthly rate of production per hectare.
Column 6:	The GOR penalty base is calculated in accordance with Schedule 6, Part A of the Regulations.
Column 7:	This column lists Special Provisions which are applicable to pools, or to individual wells or groups of wells in a pool type. The specific clauses appear in Appendix II.

APPENDIX I TO MRL ORDER NO. 28

LIGHT-MEDIUM CRUDE OIL POOLS

1	2			3	4	5	6	7
FIELD/POOL NAME	CODES			BASIC WELL RATE	MAXIMUM RATE LIMITATION	MAXIMUM RATE LIMITATION	BASE GOR	SPECIAL PROVISIONS (SEE APPENDIX II)
	FIELD	POOL	POOL TYPE	m^3/day	m^3/day/ha	m^3/month/ha	m^3/m^3	CLAUSE
LEDUC-WOODBEND D-3A	0551	720001	20	8.0	G P P			
LEDUC-WOODBEND D-3B	0551	720002	00	8.0	G P P			
LEDUC-WOODBEND D-3E	0551	720005	00	8.0	G P P			
LEDUC-WOODBEND D-3F	0551	720006	00	8.0	G P P			
LEDUC-WOODBEND D-3G	0551	720007	00	8.0	G P P			
LEDUC-WOODBEND D-3I	0551	720009	00	8.0	G P P			
LEDUC-WOODBEND D-3J	0551	720010	00	8.0	0.3328	9.9840	180	
LEEDALE CARDIUM A	0552	176001	00	8.0	G P P			
LEGAL MIDDLE VIKING A	0553	221001	00	8.0	G P P			
LEO UPPER MANNVILLE A	0555	250001	00	8.0	0.2500	7.5000	70	1,14a
LEO UPPER MANNVILLE C	0555	250003	00	8.0	G P P			
LEO UPPER MANNVILLE D	0555	250004	00	8.0	0.1250	3.7500	90	1
LEO UPPER MANNVILLE E	0555	250005	00	8.0	G P P			
LEO UPPER MANNVILLE F	0555	250006	00	8.0	0.1250	3.7500	80	1
LEO UPPER MANNVILLE H	0555	250008	00	8.0	0.2500	7.5000	70	1
LESSARD KEG RIVER A	1141	788001	00	8.0	0.2234	6.7020	70	
LESSARD KEG RIVER C	1141	788003	00	8.0	0.1250	3.7500	80	
LITTLE HORSE GILWOOD D	0078	778004	00	8.5	0.2594	7.7820	70	
LITTLE HORSE GILWOOD E	0078	778005	00	8.5	0.1750	5.2500	70	
LITTLE HORSE GILWOOD F	0078	778006	00	8.0	0.1250	3.7500	80	
LITTLE SMOKY D-3	0563	720000	00	8.0	G P P			
LOCHEND CARDIUM A	0573	176001	00	10.0	0.1563	4.6890	200	1,8,14a
LOCHEND CARDIUM C	0573	176003	00	8.0	G P P			
LOCHEND CARDIUM E	0573	176005	00	9.5	0.0742	2.2260	190	
LOCHEND CARDIUM F	0573	176006	00	8.5	0.1328	3.9840	200	
LOCHEND CARDIUM G	0573	176007	00	11.0	0.1719	5.1570	200	
LOCHEND CARDIUM H	0573	176008	00	9.5	0.1484	4.4520	200	
LOCHEND CARDIUM I	0573	176009	00	9.5	0.1484	4.4520	180	
LOCHEND CARDIUM K	0573	176011	00	9.5	0.1484	4.4520	170	
LOCHEND CARDIUM L	0573	176012	00	9.5	0.1484	4.4520	200	
LOCHEND CARDIUM M	0573	176013	00	10.0	0.1563	4.6890	200	
LONE PINE CREEK D-3	0576	696001	00	8.0	G P P			
LONG COULEE GLAUCONITIC A	0577	300001	00	8.0	0.2500	7.5000	110	

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CANADIANA
AUG 31 1989

ERCB

Energy Resources Conservation Board

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-12

24 August 1989

TO: Companies engaged in the exploration for or mining of coal

RELEASE OF ERCB INTERPRETED COAL DATA

Coal exploration drillhole information submitted to the ERCB is made public under provisions of the Coal Conservation Act Regulations. Drillhole particulars are available on computer readable tape or as computer printout, and logs are available on microfiche.

For its own purposes, the Board has added to its coal database the depths to the tops and bottoms of coal seams as interpreted from logs for many of the drillholes recorded on the database. In many instances estimates of coal mineral matter content and seam numbers have been included.

In recent years the economic restraints encountered by industry and research institutes have resulted in requests to the Board to release its interpreted information, thereby allowing funds to be directed towards evaluation of coal data rather than to re-interpretation of already interpreted logs. The Board now proposes to accede to these requests and to include on its publicly available tape of coal data all information on its database for those drillholes designated as non-confidential.

Your comments on the draft policy respecting release of ERCB interpreted coal data are invited and should be directed to Mr. R. G. Paterson, Manager, Coal Department, to arrive at the Board offices on or before 8 September 1989. The Board will then make a final decision on whether or not it will proceed with the release of interpreted data.

N. A. Strom
Vice Chairman

ERCB

Energy Resources Conservation Board
640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-13

CANADIANA
SEP 12 1989

TO: All Oil and Gas Operators 30 August 1989

GOOD PRODUCTION PRACTICE STATUS
CONVENTIONAL LIGHT-MEDIUM CRUDE OIL POOLS

The Board indicated in Informational Letter IL 89-11, issued 18 August 1989, that it would endeavour to place those pools with inflated or artificially high maximum rate limitations (MRLs) on good production practice (GPP). The Board has completed its review of these and other pools, and effective 1 October 1989 plans to assign GPP status to the pools listed on Attachments 1 and 2.

Prior to implementation of the Modified Proration Plan (MPP) effective 1 June 1987, the pools (or part thereof) listed on Attachment 1 were not assigned MRLs as rate controls were not considered necessary for conservation purposes. With implementation of the MPP, the Board assigned MRLs for administrative purposes only. These MRLs were made artificially high so that production operations would not be unnecessarily constrained. With revisions to the MPP as announced in Informational Letter IL 89-8, the Board considers it timely that the subject pools be granted GPP status for administrative convenience. Accordingly, the pools (or part thereof) listed on Attachment 1 will be placed on GPP effective 1 October 1989.

The Board has also reviewed the pools listed on Attachment 2 and notes that they are incapable of producing at their assigned MRL levels. Consequently, for administrative convenience these pools will also be placed on GPP effective 1 October 1989.

The Board emphasizes that the pools listed on Attachments 1 and 2 will continue to be subject to those controls specified in the Special Provisions Section, Appendix II, of the MRL Order. Further, the pools that are operated in accordance with other Board orders, such as concurrent production or pressure maintenance approvals, will continue to be subject to the terms and conditions of those orders.

Operators are also reminded that should circumstances change materially in any of these pools, the Board may impose rate limitations on a pool or part of a pool where it deems appropriate.

Any questions with regard to the above should be directed to Andy Burrowes (297-8566) or Terry Hurst (297-8570) of the Board's Oil Department.

N. G. Berndtsson, P.Eng.
Manager
Oil Department

ATTACHMENT 1 TO IL 89-13

Pool	Mechanism
Acheson D-3 A	*
Boundary Lake South Triassic E	*
Carson Creek North BHL A and B	Waterflood only
Caroline Rundle A	Waterflood only
Clive D-2 A	Waterflood only
Clive D-3 A	Waterflood only
Cyn-Pem Cardium A	Waterflood only
Drumheller D-2 B	*
Fairydell-Bon Accord D-3 A	*
Fenn-Big Valley D-2 A	*
Gilby Jurassic B	Waterflood only
Glen Park D-3 A	*
Golden Slave Point A	*
Golden Spike D-3 A	*
Goose River Beaverhill Lake A	*
Harmattan East Rundle	*
Hussar Glauconitic A	*
Innisfail D-3	*
Judy Creek BHL A	Waterflood/solvent flood only
Judy Creek BHL B	*
Kaybob Beaverhill Lake A	Waterflood/solvent flood only
Kaybob South Triassic A	Waterflood/solvent flood only
Medicine River Basal Quartz B	Waterflood only
Medicine River Jurassic A	Waterflood only
Medicine River Jurassic C	Waterflood only
Meekwap D-2 A	Waterflood only
Mitsue Gilwood A	Waterflood/solvent flood only
Nipisi Gilwood A	*
Pembina Keystone Belly River B	*
Pembina Keystone Belly River C	Waterflood only
Rainbow Keg River B	*
Red Earth Granite Wash A	*
Simonette D-3	*
Snipe Lake Beaverhill Lake	Waterflood only
Sturgeon Lake South D-3	*
Swan Hills Beaverhill Lake C	Waterflood only
Swan Hills Beaverhill Lake A and B	Waterflood/solvent flood only
Swan Hills South BHL A and B	Waterflood
Virginia Hills Beaverhill Lake	Waterflood only
Westerose D-3	*

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* Entire pool placed on GPP effective 1 October 1989.

ATTACHMENT 2 TO IL 89-13

Bonnie Glen D-3 A Pool

Swan Hills South BHL A and B Pool - Solvent flood

Wizard Lake D-3 Pool

- Rainbow Integrated Scheme No. 1
  - Rainbow Keg River A Pool
  - Rainbow Keg River D Pool
  - Rainbow Keg River E Pool
  - Rainbow Keg River G Pool
  - Rainbow Keg River H Pool
  - Rainbow Keg River O Pool
  - Rainbow Keg River EEE Pool

- Rainbow Integrated Scheme No. 2
  - Rainbow Keg River N Pool
  - Rainbow Keg River T Pool
  - Rainbow Keg River Z Pool
  - Rainbow Keg River FF Pool

- Rainbow Integrated Scheme No. 11
  - Rainbow Keg River AA Pool
  - Rainbow Keg River EE Pool
  - Rainbow Keg River JJ Pool
  - Rainbow Keg River KK Pool
  - Rainbow Keg River QQ Pool
  - Rainbow Keg River RR Pool
  - Rainbow Keg River VV Pool
  - Rainbow Keg River DDD Pool
  - Rainbow Keg River OOO Pool

- Virgo Integrated Scheme No. 6
  - Virgo Keg River I Pool
  - Virgo Keg River R Pool
  - Virgo Keg River Z Pool
  - Virgo Keg River AAA Pool

AL 1.151

CANADIANA
SEP 25 1989

ERCB

Energy Resources Conservation Board

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-14

To: All Oil and Gas Operators 13 September 1989

APPLICATIONS FOR GAS-OIL RATIO PENALTY RELIEF

The gas-oil ratio (GOR) penalty schedule provides an effective tool for dealing with oil and gas conservation matters, and further serves to maintain equity by equalizing reservoir voidage in multi-well pools of mixed ownership. It helps to control reservoir withdrawals and the excessive flaring of solution gas where the feasibility of gas conservation or pressure maintenance has not been fully addressed. Control of gas flaring is particularly important in environmentally sensitive areas.

The Board's current practice is to accept requests for GOR penalty relief on the basis of a suitably supported application submitted in accordance with section 15.090 of the Oil and Gas Conservation Regulations (Regulations)*. While the Board continues to believe that the GOR penalty base should be retained in its current form, it is endeavouring to simplify and expedite the application process. This informational letter seeks to clarify and update industry on the Board's view with respect to GOR penalty relief, and introduce new measures designed to assist industry and make the overall process more efficient.

Criteria for Penalty Relief

When evaluating applications for GOR penalty relief, the Board seeks to find answers to the following:

1. Is the excess gas production from solution gas or does it involve an associated gas cap?

2. Can remedial work be done to reduce excess gas production?

3. If the gas is being conserved and oil conservation and equity matters are not an issue, GOR penalty relief on the basis of net gas production is virtually automatic. Net gas production is defined in clause 1 of the Special Provisions to the MRL Order.

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* Sections 10(1)(o) and 10(3) of the Oil and Gas Conservation Act and sections 10.050 and 10.060 of the Regulations provides the Board with authority to establish a GOR base for determining penalty factors and to consider applications for relief from GOR penalties.

4. If the gas is not being conserved, evidence must be provided to show that gas conservation is not economically viable. Where this is clearly demonstrated to the satisfaction of the Board and other requirements including environmental and aesthetic impacts of gas flaring are satisfied, penalty relief is normally approved by removal or altering of the GOR penalty base. In certain cases, the Board may be willing to improve the economics of gas conservation by granting a special maximum rate limitation (MRL) or good production practice (GPP), where explicit limitations on production are not deemed necessary.

5. Is there potential for further pool development? Could GOR penalty relief impact on the pool's future depletion strategy?

6. Is the pool a likely candidate for enhanced oil recovery? If so, penalty relief would generally not be considered appropriate until this issue has been resolved.

7. Where primary depletion is deemed the optimum mode of depletion, will production at unpenalized rates prejudice ultimate recovery or have an adverse effect on correlative rights?

8. Where an associated gas cap is present in the pool, has the question of concurrent production been considered and have owners of the gas rights been contacted and involved in the pool's depletion planning?

9. Where a pool has mixed ownership, has the issue of correlative rights been addressed on a pool basis?

Regional Penalty Relief

Where appropriate, the Board would encourage that application for GOR penalty relief be made on a regional rather than individual pool basis. A request of this nature would require a joint submission from all interested parties within a group of fields and pools which share similar geology, production performance, and pool depletion strategies. It is important that the reservoir geology and fluid properties be reasonably defined, and that reliable early performance and pressure data be obtained to substantiate interpretations.

For example a regional approach was used successfully in an application for penalty relief for pools completed in the Banff Formation in the Craigmyle, Michichi, and Watts Fields. After concluding that enhanced recovery was not feasible and recognizing that gas was to be conserved, the Board granted net GOR penalty relief and a special MRL of 25 m^3 per day per well for all Banff wells in the region. Attached is a copy of the letter to all operators in the subject fields regarding this decision. Also attached is a letter where, on a regional basis, the Board approved GPP for all Dina Pools in the Hayter and Provost Fields.

Application Form - Small Pools

To further simplify applications for GOR penalty relief for small, poor quality pools the Board is introducing a new application form, Board Form 0-33 (attached). It is anticipated that this form will help to minimize the number of deficiencies observed with this type of application. Where appropriate an operator is expected to supplement this form by providing expanded explanations and documentation of technical arguments. Applications involving larger, more complex pools should address the issues mentioned above and observe the more detailed requirements of section 15.090 of the Regulations.

Other Considerations

The Board's normal practice will be to approve GOR penalty relief effective the first day of the month following the month a final decision is made. However, where gas is already being conserved and all other issues have been adequately resolved, the Board will consider approval of penalty relief at an earlier date.

The Board has placed several hundred pools on GPP with the expectation that these pools will be operated in accordance with good engineering principles so as to maximize hydrocarbon recovery. It should be recognized that GPP status may be revoked where conditions change such that conservation, equity, or the environment are being compromised. For instance where further development is occurring or where substantial volumes of gas are being flared, GPP may be revoked.

Finally, due in part to increased public awareness, environmental concerns regarding the flaring of solution gas have become more pronounced in recent years. Where such concerns are present, the Board would carefully weigh environmental and aesthetic impacts, in addition to technical and economic matters, in making decisions related to GOR penalty relief.

Questions concerning this letter should be directed to the Board's Oil Department at 297-8566 or 297-8570.

N. G. Berndtsson, P.Eng.
Manager
Oil Department

ERCB

Energy Resources
Conservation Board
640 Fifth Avenue SW
Calgary, Alta. T2P 3G4

APPLICATION FOR GAS-OIL RATIO (GOR) PENALTY RELIEF

[illegible]s form is to be used for smaller, less complex pools only. For detailed application requirements, refer to Section 15.090 of the Oil and Gas Conservation Regulations.

A covering letter should state the reason GOR Penalty Relief is being requested and should be made on behalf of all operators in the pool.

APPLICANT ______________________ ON BEHALF OF ______________________

FIELD/POOL NAME ______________________

GAS CONSERVATION

Is solution gas currently being conserved? Yes ☐ No ☐

If gas conservation is planned for the future, identify the tie-in location and provide an implementation schedule.

If gas conservation is not considered feasible, include economic analysis showing capital costs, product price forecasts, total revenue (including liquids), payout time and rate of return.

I PERFORMANCE CHARACTERISTICS

BASE MRL ______________ m^3/d/well

BASE GOR ______________ m^3/m^3

WELL LOCATION	ON PRODUCTION DATE	CUMULATIVE OIL PRODUCTION m^3	CAPABILITY m^3/d	GOR m^3/m^3

II POOL RESERVES (Applicant's Interpretation)

AREA (hectares) ______________

$N(10^3 m^3)$ ______________

R_i ______________

$R_i N(10^3 m^3)$ ______________

IV PRESSURE DATA

P_i ______________ kPa(ga)

P_b ______________ kPa(ga)

Last recorded pressure ______________ kPa(ga)

Date ______________ Well ______________

Where appropriate, attach material balance calculations.

33(a) 89-08

V GEOLOGY

Discuss the potential for further pool development.

VI RECOMPLETION POTENTIAL

Comment on recompletion potential or any measures taken to reduce gas production.

VII ENCHANCED RECOVERY POTENTIAL

VIII IMPACT ON PRIMARY OIL RECOVERY

IX CORRELATIVE RIGHTS – Include an up-to-date map showing lessee and lessor ownership

(N.B. If pool is multi-well and of mixed ownership, concurrence is required from all operators, in writing.

ERCB

Energy Resources
Conservation Board

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Telephone (403) 297-8311
Telex 03-821717

1 February 1989

To: All Operators
(see attached list)

GOR PENALTY RELIEF AND SPECIAL MAXIMUM RATE LIMITATION
CRAIGMYLE - MICHICHI - WATTS AREA

On 28 January 1987, the Board issued a letter to all operators approving temporary gas-oil ratio (GOR) penalty relief on the basis of net gas production for wells producing from the Banff formation within an area encompassing the Chain, Craigmyle, Delia, Michichi, Pearl and Watts fields. The interim period of penalty relief commenced 1 February 1987 and was to terminate 31 July 1988. The purpose of this period was to establish pool delineation and optimum depletion strategies. The GOR penalty relief period was subsequently extended until the Board completed its review of the required studies. To further expand the study base a number of pools were granted a special maximum rate limitation (MRL).

In response to the Board's letter of 28 January 1987, performance studies were received from Preco Petroleum Consulting Ltd. on behalf of Poco Petroleums Ltd. (dated 7 June 1988) and Renaissance Energy Ltd. (dated 11 May 1988) in support of continued GOR penalty relief and increased MRL's for wells exhibiting capabilities in excess of their reserve-base MRL. These reports concluded that:

- the Banff geology in the study area is very complex making pool delineation difficult
- the formation is highly fractured which is believed to not only control well productivities, but precludes any pressure maintenance feasibility alternatives
- neither GOR penalty relief or increased production rates under the special MRL's has negatively impacted well performance.

A review by the Board staff of the geology, well performance and available pressure data supports the general conclusions of the studies. Although more detailed work is believed necessary to determine recovery potential of the Banff formation, the Board agrees that primary depletion and continued GOR penalty relief for wells producing from the Banff formation in this area is appropriate.

.../2

With regards to the request for higher MRL's, the Board notes that optimum production rates were not discussed to any detail in the reports. In its own review, the Board compared individual well rates to determine an appropriate MRL level as well as the implications of good production practice (GPP). Good production practice was ruled out as a production administration option because of the potential impact on the Modified Proration Plan.

The Board believes that a special MRL of 25 m^3 per day per well in conjunction with GOR penalty relief provides a reasonable production level for Banff oil wells in that area shown on the attached plat. Wells developing the Banff formation outside this area will be subject to normal allowable administration and GOR penalties. However, the Board will entertain applications for GOR penalty relief and special MRLs where appropriate.

In summary, the Board has approved the following:

1) Continuation of GOR penalty relief for those Banff pools previously granted interim relief. Any new wells placed on production from the Banff formation in that area shown on the attached plat shall receive GOR penalty relief upon notification of gas conservation.

2) All existing and future Banff pools within the subject area, with the exception of those pools subject to GPP, shall be entitled to a special MRL of 25 m^3/day/well which will become effective 1 March 1989.

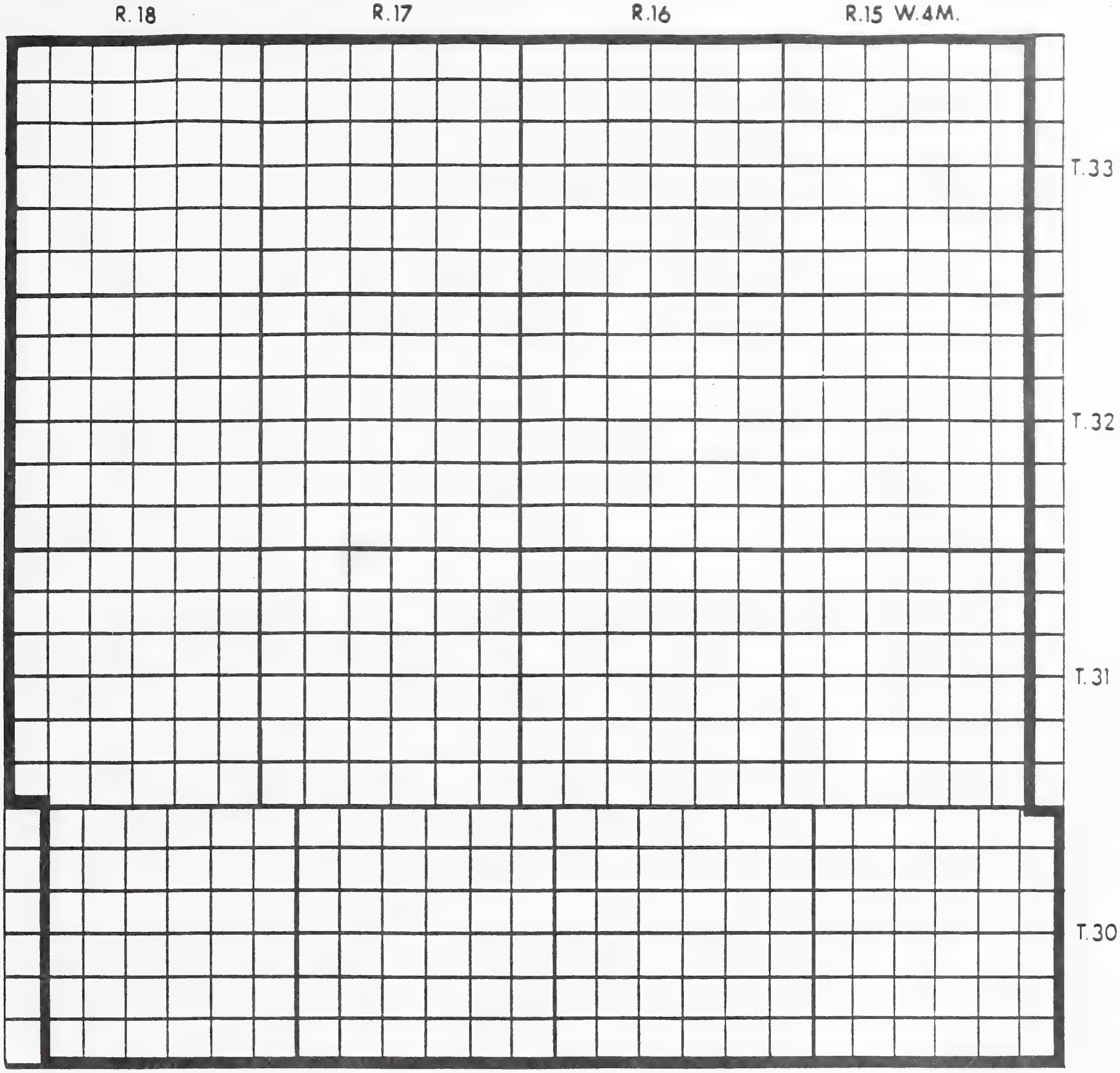
If you have any questions regarding this letter, please contact Mary Anne Cairns of the Board's Oil Department at 297-8563.

Yours truly,

R. J. Willard, P. Eng.
Assistant Manager
Oil Department

AO/js

bcc: N. Strom, Vice Chairman
P. Prince, Board Member
S. Wanka, Allowables
A. Burrowes, Oil Proration
G. Kimber, Oil Proration
E. Moeller, Gas Department
B. Fairgrieve, Geology



GOR PENALTY RELIEF AND SPECIAL MRL APPROVAL AREA

Banff Formation only

ERCB

Energy Resources
Conservation Board

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Telephone (403) 297-8311
Telex 03-821717

23 January 1989

To: All Operators
(see attached list)

GOOD PRODUCTION PRACTICE
HAYTER AND PROVOST DINA POOLS

In September 1988 Renaissance Energy Ltd. submitted a regional performance study of the Dina pools in the Hayter and Provost fields. The study was prepared to support the continuation of good production practice (GPP) administration conditionally approved for a number of these pools. The Board has completed its review of the study and makes the following observations:

1) the Dina pools located between Ranges 1 to 10 W4M inclusive and between Townships 34 to 41 inclusive are associated with a large underlying aquifer. The general opinion is that this aquifer is reasonably effective in maintaining reservoir pressure.

2) typically, wells producing from the Dina formation demonstrate good initial oil productivities and within the first year the producing water-cuts increase significantly with rapidly deteriorating oil rates. This performance indicates the critical coning rate for wells producing from the Dina pools is low and hence oil recovery is maximized by optimizing up-front economics during the early high productive life of the wells and investing in adequate water disposal facilities to handle the expected high volumes of produced water.

3) there has been no evidence presented to the Board to show that equity is of concern for those pools producing under GPP administration.

In view of these observations the Board believes that it would be technically advisable and administratively expedient to approve GPP for all remaining designated and undesignated Dina pools in the Hayter and Provost fields effective 1 March 1989 and to permit those pools which have GPP approval on an interim basis to continue to produce under GPP administration. In addition, for a newly completed well in an undesignated or designated pool, GPP will be permitted from it's on production date. The approval of GPP does not affect the requirements for submitting the appropriate application for a "New Well Base Allowable or Maximum Rate Limitation" (0-38 form).

.../2

Renaissance also requested that all pressure surveying requirements for Dina pools in the Hayter and Provost fields be waived indefinitely. The Board does not believe that complete waiver of all pressure surveys is appropriate at this time considering the active development of the Dina formation. Although available pressure information does support the existence of an active aquifer, it does not conclusively indicate that the aquifer will be able to maintain, or as a minimum, retard pressure depletion in high well density GPP pools. In this regard the Board offers the following guidelines for obtaining pressures in the Hayter and Provost Dina pools:

1) initial and two subsequent pressure surveys are required for all new pools during the first two years of production. Subsequent pressure surveys, survey frequency, or waiver of surveys would be considered after evaluation of the available pressure data.

2) for pools of reasonable reservoir quality having ten or more productive wells, the Board suggests that at least 2 or more wells located to provide the optimum areal coverage be surveyed. As in item (1) above, the Board would consider the appropriateness of continued surveys or a change in survey frequency after a minimum of 3 pressure surveys over a period of 2 years.

3) if it appears that at the end of two years, abnormal pressure depletion in any pool or area is evident or pressure data obtained is completely lacking credibility, a proper and adequate pressure survey program will be discussed with the operator(s). Such discussions would require the operator(s) to address pressure depletion concerns if such were necessary.

The Board's Gas Department considered the feasibility of gas conservation for the Dina pools. It concluded that for most pools, gas conservation was not considered a viable option due to declining oil production and low volumes of produced gas. However, the Gas Department will continue to monitor the development of the Dina formation with regards to future gas conservation concerns.

Questions regarding this letter should be directed to Mr. Alyn Olive of the Board's Oil Department at 297-8555.

Yours truly,

R Willard

R. J. Willard, P. Eng.
Assistant Manager
Oil Department

AO/js

LIST OF OPERATORS

Dina Formation
Hayter - Provost Fields

Altana Exploration Company
1240, 700 - 9th Avenue S.W.
Calgary, Alberta
T2P 3V4

Altavista Resources Ltd.
310, 355 - 4th Avenue S.W.
Calgary, Alberta
T2P 0J1

Altex Resources Ltd.
1500, 700 - 4th Avenue S.W.
Calgary, Alberta
T2P 3J4

Amoco Canada Petroleum Company Ltd.
444 - 7th Avenue S.W.
Calgary, Alberta
T2P 0Y2

Argyll Resources Ltd.
1800, 717 - 7th Avenue S.W.
Calgary, Alberta
T2P 0Z3

Banff Oil (1970) Ltd.
2000, 540 - 5th Avenue S.W.
Calgary, Alberta
T2P 0M2

Blake Resources Ltd.
c/o Woodb O & G
800, 1122 - 4th Street S.W.
Calgary, Alberta
T2R 1M1

BP Resources Canada Limited
333 - 5th Avenue S.W.
Calgary, Alberta
T2P 3B6

Cabre Exploration Ltd.
1000, 635 - 8th Avenue S.W.
Calgary, Alberta
T2P 3M3

Canada Northwest Energy Limited
2700, 300 - 5th Avenue S.W.
Calgary, Alberta
T2P 3C4

Canadian Occidental Petroleum Ltd.
1500, 635 - 8th Avenue S.W.
Calgary, Alberta
T2P 3Z1

Carlyle Energy Ltd.
800, 1122 - 4th Street S.W.
Calgary, Alberta
T2P 1M1

Chauvco Resources Ltd.
2900, 255 - 5th Avenue S.W.
Calgary, Alberta
T2P 2R9

Coachwood Resources Ltd.
520, 999 - 8th Street S.W.
Calgary, Alberta
T2R 1J5

Coho Resources Limited
3700, 700 - 2nd Street S.W.
Calgary, Alberta
T2P 2W2

Commercial Oil & Gas Ltd.
910, 1122 - 4th Street S.W.
Calgary, Alberta
T2R 1M1

Corrida Oils Ltd.
1800, 311 - 6th Avenue S.W.
Calgary, Alberta
T2P 3H2

Cougar Resources Ltd.
260, 700 - 4th Avenue S.W.
Calgary, Alberta
T2P 3J4

Eagle Resources Ltd.
3500, 1212 - 31st Avenue N.E.
Calgary, Alberta
T2E 7S8

Encounter Energy Resources Limited
1800, 311 - 6th Avenue S.W.
Calgary, Alberta
T2P 3W2

Glen Isle Exploration Ltd.
750, 202 - 6th Avenue S.W.
Calgary, Alberta
T2P 3P4

Gulf Canada Limited
401 - 9th Avenue S.W.
Calgary, Alberta
T2P 3C5

Hillcrest Resources Ltd.
575, 441 - 5th Avenue S.W.
Calgary, Alberta
T2P 2V1

Husky Oil Operations Ltd.
P.O. Box 6525
Calgary, Alberta
T2P 3G7

Joffre Resources Ltd.
600, 708 - 11th Avenue S.W.
Calgary, Alberta
T2R 0E4

Kanata Gas & Oil Ltd.
220, 801 - 6th Avenue S.W.
Calgary, Alberta
T2P 3W2

Keles Production Company Ltd.
100, 1301 - 8th Street S.W.
Calgary, Alberta
T2R 1B7

Knee Hill Energy Canada Ltd.
400, 505 - 8th Avenue S.W.
Calgary, Alberta
T2P 1G2

Ladd Exploration Company
800, 707 - 7th Avenue S.W.
Calgary, Alberta
T2P 0Z2

Maxon Energy Inc.
455, 520 - 5th Avenue S.W.
Calgary, Alberta
T2P 3R7

Mont Resources Limited
301, 805 - 8th Avenue S.W.
Calgary, Alberta
T2P 1H7

Morgan Hydrocarbons Inc.
2200, 205 - 5th Avenue S.W.
Calgary, Alberta
T2P 2V7

Morrison Petroleums Ltd.
2700, 801 - 6th Avenue S.W.
Calgary, Alberta
T2P 3W2

Murphy Oil Company Ltd.
P.O. Box 2721
Calgary, Alberta
T2P 3Y3

Noramex Resources Ltd.
321 - 50th Avenue S.E.
Calgary, Alberta
T2G 2B3

Norcen Energy Resources Limited
3100, 715 - 5th Avenue S.W.
Calgary, Alberta
T2P 2X7

NSM Resources Ltd.
300, 555 - 4th Avenue S.W.
Calgary, Alberta
T2P 3E7

Oakwood Petroleums Ltd.
1800, 311 - 6th Avenue S.W.
Calgary, Alberta
T2P 3H2

Omega Hydrocarbons Ltd.
1300, 112 - 4th Avenue S.W.
Calgary, Alberta
T2P 0H3

PanCanadian Petroleum Limited
Box 2850
Calgary, Alberta
T2P 2S5

Petro-Canada Inc.
P.O. Box 2844
Calgary, Alberta
T2P 3E3

Pinnacle Resources Ltd.
1750, 736 - 6th Avenue S.W.
Calgary, Alberta
T2P 3T7

Ranchmen's Resources Ltd.
800, 112 - 4th Avenue S.W.
Calgary, Alberta
T2P 0H3

Renaissance Energy Ltd.
3300, 400 - 3rd Avenue S.W.
Calgary, Alberta
T2P 4H2

Strathfield Oil & Gas Ltd.
1500, 255 - 5th Avenue S.W.
Calgary, Alberta
T2P 3G6

Summit Resources Limited
2300, 144 - 4th Avenue S.W.
Calgary, Alberta
T2P 3N4

Suncor Inc. Resources Group
P.O. Box 38, 500 - 4th Avenue S.W.
Calgary, Alberta
T2P 2V5

Tintagel Energy Corporation
3000, 400 - 3rd Avenue S.W.
Calgary, Alberta
T2P 4H2

Westmin Resources Limited
1800, 255 - 5th Avenue S.W.
Calgary, Alberta
T2P 3G6

Woodbend Oil & Gas Ltd.
800, 1122 - 4th Street S.W.
Calgary, Alberta
T2R 1M1

CANADIANA
OCT - 2 1989

ERCB

Energy Resources Conservation Board
640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-15

TO: All Oil and Gas Operators 21 September 1989

EVACUATION AND IGNITION FOR SOUR WELLS

This informational letter supersedes Informational Letter IL 88-14. It revises the Board's evacuation and ignition policy as it applies to sour wells during drilling, completion, servicing, and production to reflect the "Alberta Health Guidelines for Action Regarding Hydrogen Sulphide".[1]

1 POLICY

The Board's policy is designed to ensure that if there is an uncontrolled or partially controlled release of hydrogen sulphide (H_2S) which could endanger health and safety, the public is protected by either evacuation from the area or, if evacuation is not practical, by ignition of the well.

2 PHILOSOPHY

Evacuation is the preferred alternative because it provides protection for the public and more flexibility and opportunity to correct the problem causing the H_2S release. Where evacuation may not be practical because there is a large concentration of people within the potentially affected area, the health and safety of the public must be protected by ignition of the well.

3 PROCEDURES

The evacuation procedures and ignition criteria for sour wells will normally be set out in as much detail as possible in each operator's site-specific plan. The detail and level of the site-specific plans for critical sour wells would include more information about evacuation, ignition, and other special situations or conditions than would a plan for a well with a low release rate or a small number of residents. All site-specific plans must be approved by the ERCB.

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[1] Booklet published by Alberta Health entitled "Guidelines for Action Regarding Hydrogen Sulphide".

4 EVACUATION

Residents and other members of the public within the emergency planning zone would be evacuated in accordance with the operator's approved site-specific emergency response plan. Evacuation of the public outside the emergency planning zone would be handled in accordance with the Government of Alberta Sour Gas Release Plan, depending on the results of air monitoring and the guidelines for action established by Alberta Health. In general terms the Board policy for evacuation is as follows:

(a) Air monitoring information on ambient H_2S concentration levels will be made available to the public on a regular basis throughout the duration of the sour gas emergency.

(b) At H_2S concentrations below 10 ppm in unevacuated areas,

  (1) sensitive individuals should consider leaving the area if health symptoms persist or become more severe; and

  (2) all other individuals should consider leaving the area if health symptoms develop. Medical advice is recommended.

(c) If the H_2S concentrations exceed 10 ppm for 8 hours or more, local conditions will be assessed and all persons may be advised to evacuate.

(d) If the concentrations approach 20 ppm or more, evacuation of all persons will take place.

All H_2S concentrations below 10 ppm would be based on a monitored 1-hour average. Concentrations of 10 ppm and above would be based on a monitored 3-minute average. The Government of Alberta Sour Gas Release Plan would be in place and would provide for the general notification of sensitive persons so that they would be able to evacuate the area if they wished to do so. The main control headquarters set up under the Government of Alberta plan would provide notification by radio, television, or other practical means.

5 IGNITION

The Board has identified two general types of situations that would require ignition. These are:

(a) The Board would require immediate ignition of an uncontrolled release from wells that have a very high potential H_2S release rate and are located near population centres where evacuation would not be feasible. The only exception would be that the ERCB could delay ignition if it was satisfied that control could be quickly regained and that the health and safety of residents would not be at risk.

(b) For other sour wells, residents and other members of the public within the emergency planning zone would be evacuated in accordance with the operator's site-specific emergency response plan. Should evacuation not be practical for some unforeseen reason, and the health and safety of people were at risk, the release should be ignited. Evacuation of the public outside the emergency planning zone would be handled in accordance with the Government of Alberta Sour Gas Release Plan depending on the results of air monitoring and the evacuation guidelines as outlined in Section 4. Should evacuation not be practical for some unforeseen reason, and the health and safety of people were at risk, the release should be ignited. In assessing whether or not the release should be ignited, consideration would be given to the following factors: H_2S monitoring information, weather conditions, population proximity and density, progress of well control procedures, feasibility and progress of evacuation, and reported health symptoms.

The decision to ignite the release, if the industry operator has not already done so under its site-specific plan, would be made by the Board, with advice from industry and other government agencies.

Any questions concerning this letter should be directed to the Environment Protection Department at 297-3185 or the Drilling and Production Department at 297-8186.

F. J. Mink, P.Eng.
Board Member

DGB/js

CANADIANA

OCT 10 1989

ERCB

Energy Resources Conservation Board

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-16

TO: All Production Operators

02 October 1989

GUIDELINES FOR AUTOMATED MEASUREMENT SYSTEM APPLICATIONS
ERCB GUIDE G-34
COMPARATIVE CHART DATA

In April 1986, the Board issued ERCB Guide G-34 outlining the requirements for automated measurement systems, including both flow computers and supervisory, control and data acquisition (SCADA) systems. Guide G-34 states that removal of chart records as required by section 14.070(1) of the Oil and Gas Conservation Regulations may be granted upon approval of an application and submission of acceptable comparative data between the automated system and conventional chart recordings. The comparative data was to indicate the automated system volumes to be within 2 per cent of the calculated chart volumes, on a daily basis, for 30 consecutive days.

Having reviewed a large number of applications and having conducted many field inspections of these systems, the Board is confident the automated measurement systems are typically more accurate and reliable than the conventional chart measurement. The Board has therefore decided to eliminate the requirement to submit comparative data in support of applications for automated measurement systems. Rather, the Board may conduct an in-service performance evaluation to verify the accuracy and reliability of the system's hardware and software. Other information requirements remain, as indicated, in Guide G-34.

The Board believes the elimination of chart comparative data will benefit both Industry and the ERCB in that the approval process time will be considerably shortened.

For further information regarding this letter enquiries may be directed to the Board's Drilling and Production Department at 297-5233 or 297-8321.

E.J. Morin, P.Eng.
Board Member

AL.1.151

CANADIANA
NOV - 1 1989

ERCB

Energy Resources Conservation Board
640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-17

TO: COMPANIES ENGAGED IN THE EXPLORATION
FOR OR MINING OF COAL

19 October 1989

ERCB INTERPRETED COAL DATA RELEASE

The Board has received a favourable response to the policy outlined in IL 89-12 and now proposes to proceed with the release of non-confidential interpreted coal data on or about 1 December 1989.

The interpreted data will consist of depths to the tops and bottoms of coal seams and estimated coal mineral matter contents as derived from logs. ERCB-designated seam numbers, where available, will also be included.

The additional data will become part of the computer-readable tape of data taken from the Board's coal data base. This tape will continue to be available from the Board's Information Services Department. In addition, the data will be released via the Coal Geology Section of the Alberta Geological Survey. The survey is prepared to undertake specialized retrievals to suit the needs of individual customers.

R. G. Paterson

R. G. Paterson
Manager, Coal Department

AL 1.151

CANADIANA
NOV - 1 1989

ERCB

Energy Resources
Conservation Board

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-18

TO: COAL EXPLORATION AND DEVELOPMENT COMPANIES 19 October 1989

FROM: Energy Resources Conservation Board
Alberta Environment
Alberta Energy
Alberta Forestry, Lands and Wildlife

A REVIEW OF REGULATORY PROCEDURES FOR MAJOR COAL DEVELOPMENTS

The Departments of Energy; Environment; Forestry, Lands and Wildlife (AFLW) and the Energy Resources Conservation Board (ERCB) have completed a review of the regulatory procedures for major coal projects (coal production over 45 000 tonnes per year).

The purpose of the review was to examine and recommend changes to the regulatory system which would streamline the approval system by identifying lead agencies to co-ordinate interdepartmental review where there is overlapping jurisdiction.

The review re-affirmed the value to the public, industry and government of the four-stage approval system established by the 1976 "Coal Development Policy for Alberta".

The four stages are the preliminary disclosure to government, public disclosure by way of the proponents' public involvement program, approval of the life-of-project plan (the mine site permit) and subsequent approval of detailed plans (licences).

An environmental impact assessment and a reclamation plan at the appropriate level of detail are required at both the life-of-project and detailed planning stages. The review addressed procedures for co-ordinating government and industry involvement in the preparation and review of submissions.

To expedite the approval process a Coal Co-ordinating Committee has been formed with senior operating-level representatives from Alberta Environment (Chairman), Alberta Energy, AFLW and the ERCB. The primary functions of the Committee will be to

- act in an advisory role in the approval process,
- provide co-ordination of government department involvement,
- provide a focal point for industry-government liaison,
- implement the review recommendations, and

1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The recommendations in this document are based on a review of regulatory procedures for major coal developments and an analysis of comments made by the Coal Association of Canada (CAC) to the Caucus Committee on Regulatory Reform. The Coal Association brief, while identifying numerous concerns with the present system, did not recommend deletion of any part of the basic approval system. Consequently the focus of the changes proposed in this document is on administrative and co-ordination weaknesses of an otherwise fundamentally sound system. These proposals will strengthen the existing and familiar system by better co-ordination and tighter administration.

This review of regulatory procedures for major coal developments was developed with the assistance of representatives of Alberta Environment (AE), Energy & Natural Resources (ENR), later divided into Energy and Forestry, Lands and Wildlife (FLW) and the Energy Resources Conservation Board (ERCB) having direct involvement in the coal approval process: Mr. L.K. Brocke, Mr. R.M. Christie and Mr. R.G. Paterson.

The review of regulatory procedures for major coal developments . is the first part of a review of the total coal approval process A commitment to the Coal Association of Canada (CAC) and the Caucus Committee on Economic Affairs will see a joint review of mineral leasing, exploration approvals and other regulatory procedures as a second phase of the total review.

1.2 GENERAL CONCEPTS

The coal development approval system for major projects (those that produce more than 45,000 tonnes per year) has four basic stages: Preliminary Disclosure, Public Disclosure, Conceptual Plan Approval, Detailed Plan Approval. This process, established by Government in 1976, encourages efficient resource production balanced with environmental protection. Administration of the system is the shared responsibility of the ERCB, AE, Energy and Forestry, Lands & Wildlife (FLW).

The basic system is considered to be advantageous to the public, the coal industry and government and therefore should be retained. The review of the problems noted by the coal industry in their brief on regulatory reform and government agencies identifies administrative procedures, co-ordination and commitment as the weaknesses of a fundamentally sound approval system.

It is proposed that a Coal Co-ordinating Committee (CCC) be established as the means of addressing the weaknesses in the present system. The key feature of the CCC is the establishment of a small, senior level, purpose specific committee that will remain constant throughout each approval stage with membership from AE, FLW, Energy and ERCB. The prime objectives of the CCC would be to provide co-ordination and consistency of government department involvement in coal development, liaison between government agencies and between industry and government departments, and to act in an advisory role by providing expert advice with a balanced perspective. The CCC will also have the responsibility to examine and recommend efficiencies and other improvements to the regulatory process.

Details of the proposed CCC are indicated in the following table:

Proposed Co-ordinating Mechanism

1.	Name:	Coal Co-ordinating Committee
2.	Authority:	Mutual agreement among ERCB, AE, Energy and FLW agency heads.
3.	Duration:	Two years to evaluate effectiveness.
4.	Purpose:	To provide a focal point for liaison with the coal industry on regulatory matters, to provide a management level of interdepartmental co-ordination, and to provide advice as required on coal development matters and to continually review and recommend improvements to the existing process.
5.	Membership:	Managerial level representation from each agency; specifically the Manager of the Coal Department, ERCB; the Chairman of the Development and Reclamation Review Committee (DRRC), AE; Director, Planning and Geology, Energy; and Manager, Resource Development and Reclamation, Public Lands and Division/Head, Operations Section, Alberta Forest Service, both from FLW. Alberta Environment to provide the Chairman.
6.	Appointment Procedure:	By the agency head
7.	Recommendations and Reporting:	All matters pertaining to preliminary disclosures are reported through the Director, Planning and Geology, Energy. All matters pertaining to mine permits and licences are reported through the appropriate ERCB Board Member. All matters pertaining to Environmental Impact Assessment (EIA), and D&R approvals are reported through the Director, Environmental Assessment Division, and the Chairman, Land Conservation and Reclamation Council, respectively.

8.	Records:	All meetings are to be preceded by circulation of agendas and followed by brief minutes recording decisions and items requiring follow-up actions. Recommendations are to be in writing.
9.	Public Participation:	Committee will meet with industry and/or community representatives as required.
10.	Alternates:	Committee member alternates are acceptable but member responsibilities cannot be delegated.

The benefits of the CCC at the various stages of the approval process are as follows:

1. Preliminary Disclosure:
    - (a) policy expertise available;
    - (b) broader perspective by involvement of ERCB, Energy and AE;
    - (c) balanced representation.
2. Permit Stage:
    - (a) expertise in review and evaluation procedures;
    - (b) ensures expeditious review of applications;
    - (c) ensures more effective public hearings by identification of pertinent hearing issues and effective briefing of solicitor;
    - (d) requires only minor changes to existing procedures.
3. Licence Stage:
    - (a) expertise in exploration, development and production;
    - (b) familiarity with both industry and government departments (improved communication);
    - (c) responsibility of members enables quick effective problem resolution;
    - (d) membership can provide a balanced perspective on problems ensuring solutions to meet industry needs while maintaining government objectives;
    - (e) can advise the Chairman of the Land Conservation and Reclamation Council (LCRC) on D&R approval conditions assuring co-ordination of interests and consistency of approvals from different government groups;
    - (f) seniority and expertise could assist in providing for responsible, effective and co-ordinated field inspections and enforcement;
    - (g) industry has requested formation of a key liaison group.

1.3 PROPOSED SYSTEM CHANGES

1.3.1 Preliminary Disclosure Stage

The Prelimiary Disclosure Stage gives government agencies advance notice of proponent intentions and the opportunity to advise of policy objections or identify specific issues to be addressed during subsequent permitting. Co-ordinating responsibility for interagency review lies with FLW. The results of the review are forwarded to the Minister of Energy who recommends a decision to Executive Council.

This system will be refined in the following manner:

(a) referrals for comments will be restricted to those agencies having regulatory responsibility for coal approvals and those which would be directly affected by the proposal. Other departments would receive the disclosure for their information;

(b) recommendations on applications will be forwarded through the ADM, Mineral Resources and the DM, Energy to the Minister of Energy.

The Preliminary Disclosure is a requirement of the Coal Policy, therefore no change in legislation is required.

1.3.2 The Public Disclosure meeting is to inform the public of proposed developments and encourage their concerns to be addressed in the subsequent mine permit application. It is recommended that the revised Coal Policy place responsibility for public disclosure on industry without any direct government involvement in the procedure. Public consultation by the proponent is required throughout the coal permitting process and mechanisms are in place (i.e. EIA, ERCB Hearing) to facilitate.

1.3.3 Mine Site Permit Application

The mine site permit application gives approval in principle for the project and the dedication of coal reserves in the permit area. It provides assurance that the development of these reserves is in the public interest with respect to efficiency in recovery, environmental protection and safety. Permits are issued following a co-ordinated review by the ERCB and government agencies of the application.

Co-ordination of this stage of the approval process is the responsibility of the ERCB and AE. Proposals to improve co-ordination of the existing system are administrative in in nature. They involve:

(a) utilization of the CCC to oversee co-ordination;

(b) development of a project review schedule;

(c) assured relevancy of deficiencies;

(d) consultation between project review co-ordinators and system managers for conflict resolution and confirmation of hearing issues;

(e) improved effectiveness of Crown at ERCB hearings by ensuring suitable detail in applications, identifying appropriate issues to address at hearings and effective briefing of Counsel by co-ordinators and technical advisors;

(f) commitment by Crown agencies to use ERCB hearing process to address issues which should be considered by the ERCB;

(g) inclusion of conceptual approval of linear infrastructure as part of mine site permit;

(h) development of co-ordinated information requirements guidelines;

(i) adherence to EIA scoping process to ensure relevance of information requested and appropriate level of detail;

(j) inclusion of proponent's public access policy in EIA;

(k) retention of Ministerial Approval for environmental conditions with consultation between ERCB and AE;

(l) review procedures for issuing Order in Council.

1.3.4 Coal Processing Plant Approval

This approval ensures the plant design will efficiently recover all practical and economic coal to quality specifications consistent with potential markets. It addresses energy and environmental requirements as well as transport and storage. The ERCB is the lead agency responsible for the technical review. If part of a mine site development, the processing plant application is reviewed simultaneously with the mine permit application. Consequently the environmental review and permitting occurs in a co-ordinated fashion with the ERCB technical review.

Changes recommended to strengthen the existing approval system involve:

(a) revision of information requirements to eliminate duplication and address joint concerns of ERCB and Occupational Health & Safety (OH&S);

(b) review of the regulatory requirements for the testing of coal in respect to recovery, attrition, spontaneous combustion and tailings characteristics;

(c) incorporating the processing plant as part of the mine-site permit application. The processing plant approval will be used as a second stage approval of the detailed plant design;

(d) deletion of Order in Council for coal processing plant since it delays subsequent technical modifications;

(e) retention of Environmental Ministerial Approval.

Deletion of the O.C. requires amendment of Coal Conservation Act. Coal Conservation Regulations require revisions to accommodate safety related concerns of OH&S. The proposed two stage approval system requires consultation with industry.

1.3.5 Mine Licence Stage

The purpose is to provide detailed design and operating plans for the mine and disposal sites consistent with the permit. The following changes are recommended to alleviate concern expressed about perceived overlapping responsibilities and information requirements of the mine licence, reclamation and water management approvals. These changes include:

(a) revision of information requirements to encourage a single submission encompassing the mine licence application and all environmental licence applications;

(b) elimination of the environmental Ministerial Approval for the mine licence.

Deletion of the MA requires amendment of the Coal Conservation Act or decision by the Minister under Section 21 (2.1) to waive the requirement.

1.3.6 Development and Reclamation Approval

This approval ensures that lands disturbed by mining are returned to a capability providing equivalent land use options to those existing before development in a manner consistent with practicality and economics. Responsibility for this approval process is vested with the Chairman of the LCRC. Co-ordination with the ERCB and government agencies is carried out by the Chairman of the DRRC. D&R applications are reviewed simultaneously with the mine licence and in close co-ordination with the ERCB.

The D&R application is the detailed follow-up to the EIA and Ministerial Approval of the mine site permit. It is analogous to the ERCB permit and licence procedure and should focus on the proposed five year mine plan.

The following improvements are recommended for the existing reclamation approval system:

(a) review of pertinent guidelines to ensure information consistency with the ERCB licence and EIA requirements;

(b) requirements for selected baseline studies focusing on significant and critical issues as a follow-up to the EIA;

(c) co-ordination of all environmental approvals for coal by LCRC and DRRC;

(d) elimination of environmental conditions from Miscellaneous and Mineral Surface Leases that duplicate D&R Approval conditions;

(e) recognition of current jurisdictional responsibilities to provide co-ordination;

(f) acceptance of the principle that land disturbed by mining will be returned to a state which will allow sustained levels of use at least equivalent to that existing before mining;

(g) utilization of the CCC to oversee co-ordination of government agencies involved in the licencing stage to resolve conflict, to liaise with industry, and to draft reclamation approval;

(h) confirmation of DRRC as a technical level advisory group;

(i) revisions to current D&R approval process by vesting approval drafting responsibility with the Chairman, DRRC with advice from the CCC.

Significant administrative changes to effect environmental co-ordination through the DRRC are underway.

1.3.7 Abandonment Approval

This approval provides assurance that abandonment is necessary and that it can be done economically, safely and consistently with reclamation objectives. Responsibility for this process is vested with the ERCB. Field inspection is co-ordinated with the LCRC.

Improvements proposed for the existing system are:

(a) clarification of the relationship between abandonment approval and reclamation certification;

(b) revisions to The Coal Conservation Act and Regulations;

(c) discussions amongst AE, ERCB, and FLW to resolve responsibility for old abandoned sites.

Amendment of the Coal Conservation Act is required.

1.3.8 Reclamation Certification

Certification ensures adherence to the requirements of the D&R approval when the mine site is to be abandoned. Responsibility is vested with the LCRC. Improvements recommended to the existing system are:

(a) development of certification guidelines;

(b) improved communication between ERCB and LCRC during review of abandonment and certification applications.

Administrative changes are required to implement these improvements.

1.4 CONCLUSION

The recommendations proposed in this report will serve to resolve observed problems in an otherwise sound approval process. They address administrative and legislative matters with a minimum of change to an established and familiar system.

These features will provide industry with a stable regulatory environnment where responsibilities are clear and continuity maintained throughout the process. It will also provide assurance to the public that the process results in environmentally sound coal developments which are of benefit to all Albertans.

Diagrams of existing and proposed approval procedures are shown in Appendix A with changes referenced to recommendations.

FIGURE 1 - PRELIMINARY DISCLOSURE

PRESENT SYSTEM

APPLICANT

SUBMISSION OF PRELIMINARY DISCLOSURE TO E&NR

GOVERNMENT REVIEW
(Co-ordinated by REAP)*

Agriculture (Plains)
Economic Development
Energy and Natural Resources
ERCB
Environment
Housing
Municipal Affairs
Recreation & Parks
Regional Planning Commissions
Tourism
Transportation
Utility & Telephone

SUMMARY AND RECOMMENDATION PREPARED
BY REAP AND SUBMITTED
TO DEPUTY MINISTER OF ENERGY

SUMMARY REFERRED BY DEPUTY MINISTER
OF ENERGY TO ECONOMIC PLANNING COMMITTEE
(EPC)

REVIEW AND RECOMMENDATION
BY EPC TO REJECT, DEFER
OR ENDORSE

DECISION BY EXECUTIVE
COUNCIL TO REJECT, DEFER
OR ENDORSE

APPLICANT

RECOMMENDED SYSTEM

APPLICANT

SUBMISSION OF PRELIMINARY DISLOSURE TO ALTA ENERGY

RESOURCE PLANNING BRANCH (RPB)
FORESTRY, LANDS AND WILDLIFE FOR REVIEW COORDINATION

GOVERNMENT DEPARTMENT REVIEW
AND ADVISEMENT

Agriculture
Culture and Multiculturalism
Economic Development and Trade
Energy
Energy Resources Conservation Board
Environment
Forestry, Lands and Wildlife
Municipal Affairs
Recreation and Parks
Regional Planning Commission
Tourism
Transportation and Utilities

SUMMARY OF REVIEW PREPARED
BY RPB

RECOMMENDATION PREPARED BY FLW/ENERGY
IN CONSULTATION WITH COAL CO-ORDINATING COMMITTEE

RECOMMENDATION TO DEPUTY MINISTER ENERGY

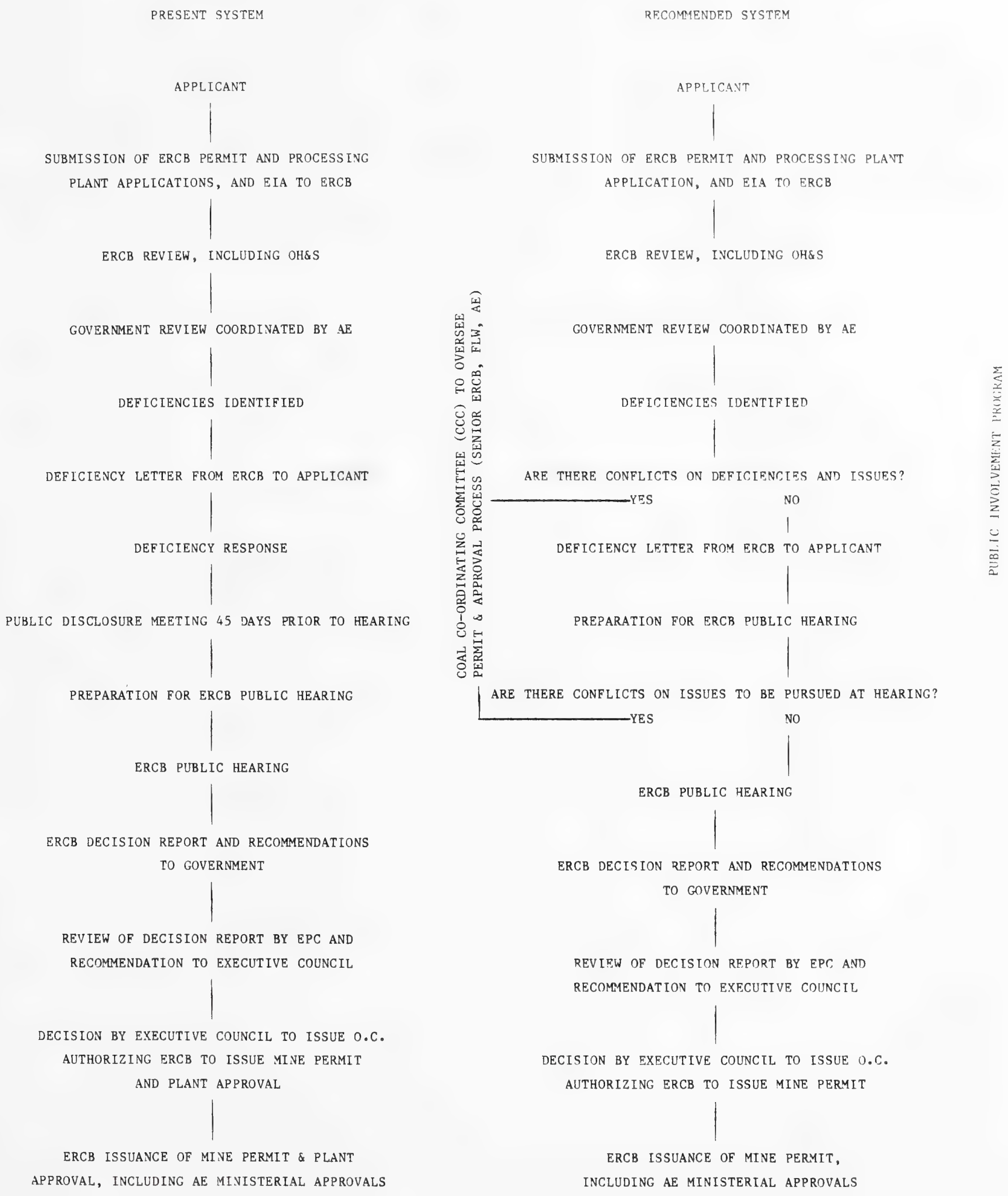
ECONOMIC PLANNING COMMITTEE

EXECUTIVE COUNCIL

APPLICANT

*REAP - Resource Evaluation & Planning Branch of Energy & Natural Resources
is now Resource Planning Branch, Forestry, Lands & Wildlife

FIGURE 2 - MINE PERMIT & PROCESSING PLANT APPROVAL

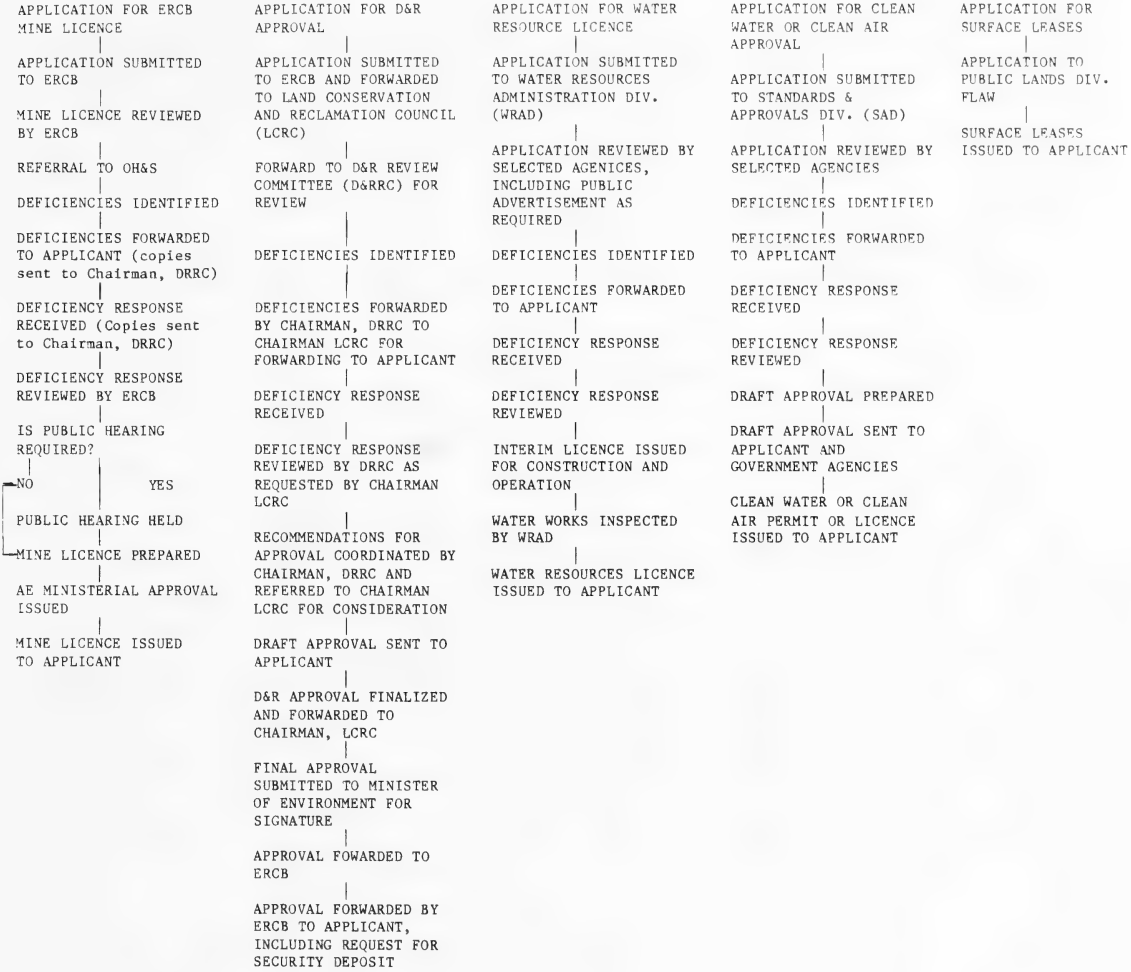

PRESENT SYSTEM
APPLICANT
SUBMISSION OF ERCB PERMIT AND PROCESSING PLANT APPLICATIONS, AND EIA TO ERCB
ERCB REVIEW, INCLUDING OH&S
GOVERNMENT REVIEW COORDINATED BY AE
DEFICIENCIES IDENTIFIED
DEFICIENCY LETTER FROM ERCB TO APPLICANT
DEFICIENCY RESPONSE
PUBLIC DISCLOSURE MEETING 45 DAYS PRIOR TO HEARING
PREPARATION FOR ERCB PUBLIC HEARING
ERCB PUBLIC HEARING
ERCB DECISION REPORT AND RECOMMENDATIONS TO GOVERNMENT
REVIEW OF DECISION REPORT BY EPC AND RECOMMENDATION TO EXECUTIVE COUNCIL
DECISION BY EXECUTIVE COUNCIL TO ISSUE O.C. AUTHORIZING ERCB TO ISSUE MINE PERMIT AND PLANT APPROVAL
ERCB ISSUANCE OF MINE PERMIT & PLANT APPROVAL, INCLUDING AE MINISTERIAL APPROVALS
RECOMMENDED SYSTEM
APPLICANT
SUBMISSION OF ERCB PERMIT AND PROCESSING PLANT APPLICATION, AND EIA TO ERCB
ERCB REVIEW, INCLUDING OH&S
GOVERNMENT REVIEW COORDINATED BY AE
DEFICIENCIES IDENTIFIED
ARE THERE CONFLICTS ON DEFICIENCIES AND ISSUES?
YES
NO
DEFICIENCY LETTER FROM ERCB TO APPLICANT
PREPARATION FOR ERCB PUBLIC HEARING
ARE THERE CONFLICTS ON ISSUES TO BE PURSUED AT HEARING?
YES
NO
ERCB PUBLIC HEARING
ERCB DECISION REPORT AND RECOMMENDATIONS TO GOVERNMENT
REVIEW OF DECISION REPORT BY EPC AND RECOMMENDATION TO EXECUTIVE COUNCIL
DECISION BY EXECUTIVE COUNCIL TO ISSUE O.C. AUTHORIZING ERCB TO ISSUE MINE PERMIT
ERCB ISSUANCE OF MINE PERMIT, INCLUDING AE MINISTERIAL APPROVALS
COAL CO-ORDINATING COMMITTEE (CCC) TO OVERSEE PERMIT & APPROVAL PROCESS (SENIOR ERCB, FLW, AE)
PUBLIC INVOLVEMENT PROGRAM

Abbreviations

AE - Alberta Environment
EIA - Environmental Impact Assessment
EPC - Economic Planning Committee
OC - Order-in-Council
OHS - Occupational Health & Safety

FIGURE 3 - MINE LICENCE AND DEVELOPMENT AND RECLAMATION (D&R) APPROVAL

PRESENT SYSTEM



APPLICATION FOR ERCB MINE LICENCE
- APPLICATION SUBMITTED TO ERCB
- MINE LICENCE REVIEWED BY ERCB
- REFERRAL TO OH&S
- DEFICIENCIES IDENTIFIED
- DEFICIENCIES FORWARDED TO APPLICANT (copies sent to Chairman, DRRC)
- DEFICIENCY RESPONSE RECEIVED (Copies sent to Chairman, DRRC)
- DEFICIENCY RESPONSE REVIEWED BY ERCB
- IS PUBLIC HEARING REQUIRED?
  - NO
  - YES
- PUBLIC HEARING HELD
- MINE LICENCE PREPARED
- AE MINISTERIAL APPROVAL ISSUED
- MINE LICENCE ISSUED TO APPLICANT

APPLICATION FOR D&R APPROVAL
- APPLICATION SUBMITTED TO ERCB AND FORWARDED TO LAND CONSERVATION AND RECLAMATION COUNCIL (LCRC)
- FORWARD TO D&R REVIEW COMMITTEE (D&RRC) FOR REVIEW
- DEFICIENCIES IDENTIFIED
- DEFICIENCIES FORWARDED BY CHAIRMAN, DRRC TO CHAIRMAN LCRC FOR FORWARDING TO APPLICANT
- DEFICIENCY RESPONSE RECEIVED
- DEFICIENCY RESPONSE REVIEWED BY DRRC AS REQUESTED BY CHAIRMAN LCRC
- RECOMMENDATIONS FOR APPROVAL COORDINATED BY CHAIRMAN, DRRC AND REFERRED TO CHAIRMAN LCRC FOR CONSIDERATION
- DRAFT APPROVAL SENT TO APPLICANT
- D&R APPROVAL FINALIZED AND FORWARDED TO CHAIRMAN, LCRC
- FINAL APPROVAL SUBMITTED TO MINISTER OF ENVIRONMENT FOR SIGNATURE
- APPROVAL FOWARDED TO ERCB
- APPROVAL FORWARDED BY ERCB TO APPLICANT, INCLUDING REQUEST FOR SECURITY DEPOSIT

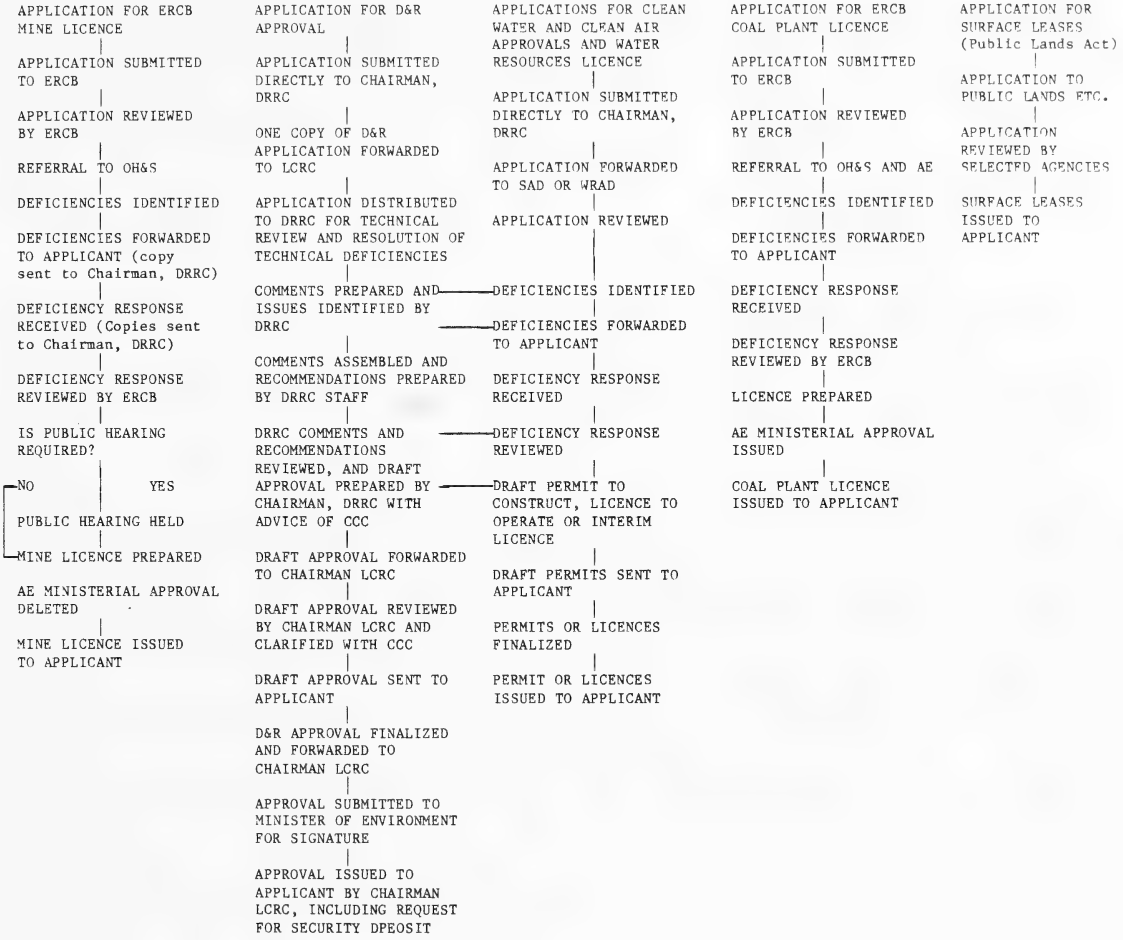
APPLICATION FOR WATER RESOURCE LICENCE
- APPLICATION SUBMITTED TO WATER RESOURCES ADMINISTRATION DIV. (WRAD)
- APPLICATION REVIEWED BY SELECTED AGENICES, INCLUDING PUBLIC ADVERTISEMENT AS REQUIRED
- DEFICIENCIES IDENTIFIED
- DEFICIENCIES FORWARDED TO APPLICANT
- DEFICIENCY RESPONSE RECEIVED
- DEFICIENCY RESPONSE REVIEWED
- INTERIM LICENCE ISSUED FOR CONSTRUCTION AND OPERATION
- WATER WORKS INSPECTED BY WRAD
- WATER RESOURCES LICENCE ISSUED TO APPLICANT

APPLICATION FOR CLEAN WATER OR CLEAN AIR APPROVAL
- APPLICATION SUBMITTED TO STANDARDS & APPROVALS DIV. (SAD)
- APPLICATION REVIEWED BY SELECTED AGENCIES
- DEFICIENCIES IDENTIFIED
- DEFICIENCIES FORWARDED TO APPLICANT
- DEFICIENCY RESPONSE RECEIVED
- DEFICIENCY RESPONSE REVIEWED
- DRAFT APPROVAL PREPARED
- DRAFT APPROVAL SENT TO APPLICANT AND GOVERNMENT AGENCIES
- CLEAN WATER OR CLEAN AIR PERMIT OR LICENCE ISSUED TO APPLICANT

APPLICATION FOR SURFACE LEASES
- APPLICATION TO PUBLIC LANDS DIV. FLAW
- SURFACE LEASES ISSUED TO APPLICANT

FIGURE 4 - MINE LICENCE AND DEVELOPMENT AND RECLAMATION (D&R) APPROVAL

RECOMMENDED SYSTEM



APPLICATION FOR ERCB MINE LICENCE
APPLICATION SUBMITTED TO ERCB
APPLICATION REVIEWED BY ERCB
REFERRAL TO OH&S
DEFICIENCIES IDENTIFIED
DEFICIENCIES FORWARDED TO APPLICANT (copy sent to Chairman, DRRC)
DEFICIENCY RESPONSE RECEIVED (Copies sent to Chairman, DRRC)
DEFICIENCY RESPONSE REVIEWED BY ERCB
IS PUBLIC HEARING REQUIRED?
NO
YES
PUBLIC HEARING HELD
MINE LICENCE PREPARED
AE MINISTERIAL APPROVAL DELETED
MINE LICENCE ISSUED TO APPLICANT

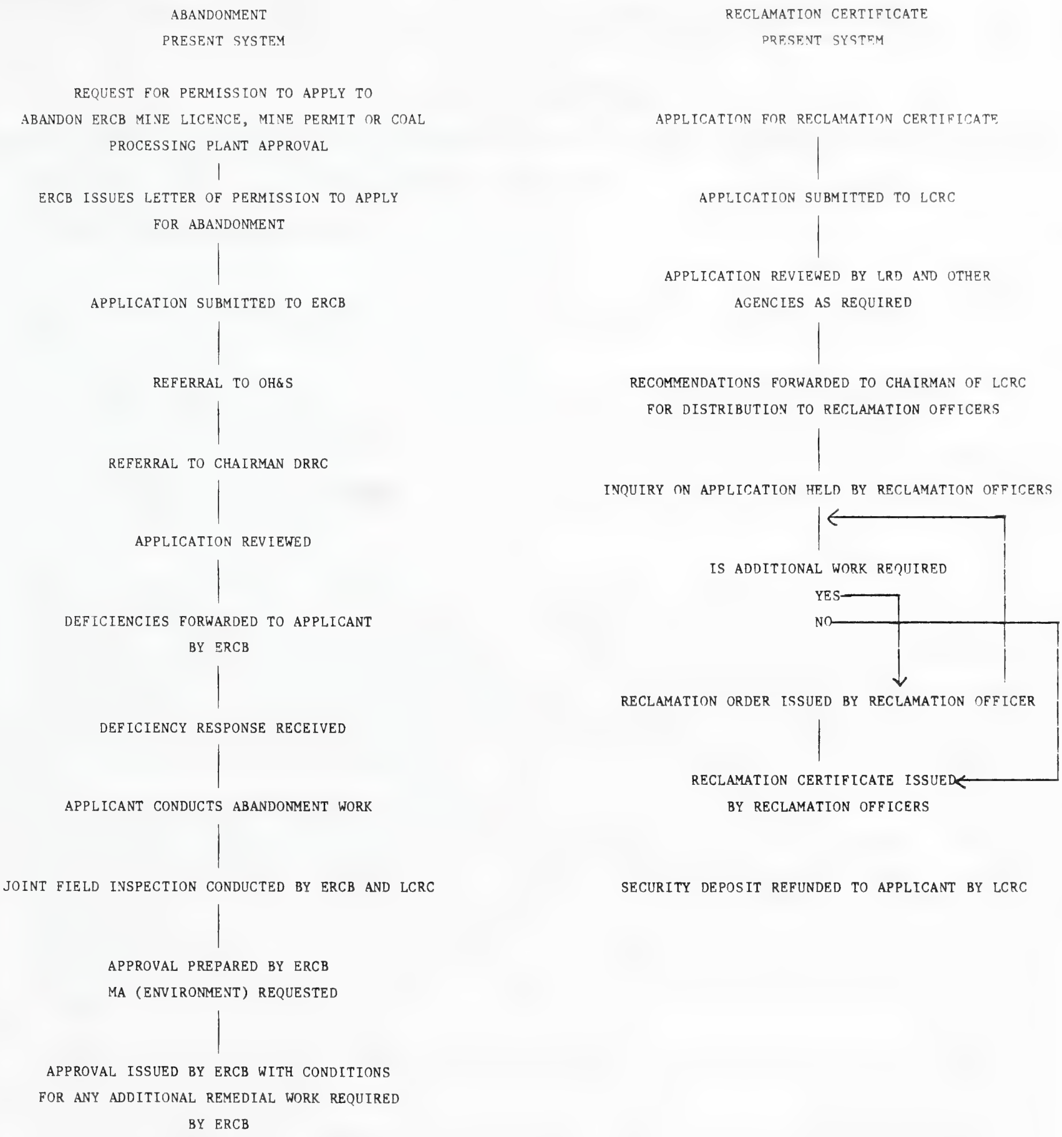
APPLICATION FOR D&R APPROVAL
APPLICATION SUBMITTED DIRECTLY TO CHAIRMAN, DRRC
ONE COPY OF D&R APPLICATION FORWARDED TO LCRC
APPLICATION DISTRIBUTED TO DRRC FOR TECHNICAL REVIEW AND RESOLUTION OF TECHNICAL DEFICIENCIES
COMMENTS PREPARED AND ISSUES IDENTIFIED BY DRRC
COMMENTS ASSEMBLED AND RECOMMENDATIONS PREPARED BY DRRC STAFF
DRRC COMMENTS AND RECOMMENDATIONS REVIEWED, AND DRAFT APPROVAL PREPARED BY CHAIRMAN, DRRC WITH ADVICE OF CCC
DRAFT APPROVAL FORWARDED TO CHAIRMAN LCRC
DRAFT APPROVAL REVIEWED BY CHAIRMAN LCRC AND CLARIFIED WITH CCC
DRAFT APPROVAL SENT TO APPLICANT
D&R APPROVAL FINALIZED AND FORWARDED TO CHAIRMAN LCRC
APPROVAL SUBMITTED TO MINISTER OF ENVIRONMENT FOR SIGNATURE
APPROVAL ISSUED TO APPLICANT BY CHAIRMAN LCRC, INCLUDING REQUEST FOR SECURITY DPEOSIT

APPLICATIONS FOR CLEAN WATER AND CLEAN AIR APPROVALS AND WATER RESOURCES LICENCE
APPLICATION SUBMITTED DIRECTLY TO CHAIRMAN, DRRC
APPLICATION FORWARDED TO SAD OR WRAD
APPLICATION REVIEWED
DEFICIENCIES IDENTIFIED
DEFICIENCIES FORWARDED TO APPLICANT
DEFICIENCY RESPONSE RECEIVED
DEFICIENCY RESPONSE REVIEWED
DRAFT PERMIT TO CONSTRUCT, LICENCE TO OPERATE OR INTERIM LICENCE
DRAFT PERMITS SENT TO APPLICANT
PERMITS OR LICENCES FINALIZED
PERMIT OR LICENCES ISSUED TO APPLICANT

APPLICATION FOR ERCB COAL PLANT LICENCE
APPLICATION SUBMITTED TO ERCB
APPLICATION REVIEWED BY ERCB
REFERRAL TO OH&S AND AE
DEFICIENCIES IDENTIFIED
DEFICIENCIES FORWARDED TO APPLICANT
DEFICIENCY RESPONSE RECEIVED
DEFICIENCY RESPONSE REVIEWED BY ERCB
LICENCE PREPARED
AE MINISTERIAL APPROVAL ISSUED
COAL PLANT LICENCE ISSUED TO APPLICANT

APPLICATION FOR SURFACE LEASES (Public Lands Act)
APPLICATION TO PUBLIC LANDS ETC.
APPLICATION REVIEWED BY SELECTED AGENCIES
SURFACE LEASES ISSUED TO APPLICANT

FIGURE 5 - ABANDONMENT APPROVAL AND RECLAMATION CERTIFICATE


ABANDONMENT
PRESENT SYSTEM
REQUEST FOR PERMISSION TO APPLY TO ABANDON ERCB MINE LICENCE, MINE PERMIT OR COAL PROCESSING PLANT APPROVAL
ERCB ISSUES LETTER OF PERMISSION TO APPLY FOR ABANDONMENT
APPLICATION SUBMITTED TO ERCB
REFERRAL TO OH&S
REFERRAL TO CHAIRMAN DRRC
APPLICATION REVIEWED
DEFICIENCIES FORWARDED TO APPLICANT BY ERCB
DEFICIENCY RESPONSE RECEIVED
APPLICANT CONDUCTS ABANDONMENT WORK
JOINT FIELD INSPECTION CONDUCTED BY ERCB AND LCRC
APPROVAL PREPARED BY ERCB MA (ENVIRONMENT) REQUESTED
APPROVAL ISSUED BY ERCB WITH CONDITIONS FOR ANY ADDITIONAL REMEDIAL WORK REQUIRED BY ERCB
RECLAMATION CERTIFICATE
PRESENT SYSTEM
APPLICATION FOR RECLAMATION CERTIFICATE
APPLICATION SUBMITTED TO LCRC
APPLICATION REVIEWED BY LRD AND OTHER AGENCIES AS REQUIRED
RECOMMENDATIONS FORWARDED TO CHAIRMAN OF LCRC FOR DISTRIBUTION TO RECLAMATION OFFICERS
INQUIRY ON APPLICATION HELD BY RECLAMATION OFFICERS
IS ADDITIONAL WORK REQUIRED
YES
NO
RECLAMATION ORDER ISSUED BY RECLAMATION OFFICER
RECLAMATION CERTIFICATE ISSUED BY RECLAMATION OFFICERS
SECURITY DEPOSIT REFUNDED TO APPLICANT BY LCRC

Abbreviations

DRRC - Development & Reclamation Review Committee
ERCB - Energy Resources Conservation Board
LCRC - Land Conservation & Reclamation Council
LRD - Land Reclamation Div. Alberta Environment
MA - Ministerial Approval
OH&S - Occupational Health & Safety

ERCB

Energy Resources Conservation Board
640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-19

TO: ALL OIL, GAS, AND OIL SANDS OPERATORS 18 September 1989

CANADIANA
NOV 15 1989

CASING FAILURE REPORTING

The Oil and Gas Conservation Regulations, section 12.141, requires that:

> "The licensee of a well shall notify the Board immediately on detection of a casing leak or failure and, if requested by a representative of the Board, shall provide a report assessing the leak or failure, including a discussion of the cause, duration, damages, proposed remedial program, and measures to prevent future failures".

The purpose of this informational letter is to remind all operators of this regulation and to outline the reporting requirements for casing failures. A casing leak or failure is defined as "any loss of casing integrity; including casing damage that results in suspension of operations or in abandonment of the well". Immediate verbal notification shall be made to the appropriate Board Area Office and in the majority of instances a follow-up written report will be required.

The failure report submitted should contain as a minimum the information outlined on the attached "Casing Failure Data Sheet". This data sheet and the accompanying "Guide to Completing the Casing Failure Sheet", were developed in conjunction with a casing failure data base to ensure consistent failure reporting information and record keeping. Operators can submit their own company failure report provided their report contains all details as outlined on the attached "Casing Failure Data Sheet".

Casing failure reports shall be submitted to the Board's Drilling and Production Department.

The Board would also like to advise operators that in conjunction with the casing failure data base the Board is also maintaining a casing corrosion data base. This data base was implemented as a result of a recommendation ensuing from the External Casing Corrosion Survey conducted by a task group of the local chapter of National Association of Corrosion Engineers. The recommendation was "A continuation of the survey should be considered with a view both to expanding the data base and refining the existing data to expose trends of a more detailed nature. As the data base becomes larger and more complete there is a greater probability that the external corrosion problems can be anticipated and held in check, thereby saving a number of wells or avoiding costly repairs. In addition, problems which are pin pointed by a more complete data base can expose the need for a change in the way new wells are completed."

Since the Board receives a copy of all casing inspection logs run and has a keen interest in casing corrosion, it has volunteered to continue the data base and record all new log information. A copy of the "Casing Corrosion Data Sheet" and "Guide for Completing the Casing Corrosion Data Sheet" is attached. Operators are requested to ensure that when casing inspection logs are submitted that they have a log interpretation summary attached or complete a copy of the Casing Corrosion Data Sheet and submit it with the log.

The Board will make the information included on these data bases available to interested parties.

For further information regarding this letter enquiries may be directed to the Board's Drilling and Production Department at 297-8185.

J.R. Nichol

J. R. Nichol, P.Eng.
Manager
Drilling and Production Department

Attachments

GUIDE TO COMPLETING CASING CORROSION DATA SHEET

Since the ERCB receives a copy of all logs run on all wells in Alberta and requires casing inspection logs to be run and submitted on some specific wells, it is the logical body to keep up the data base.

The purpose of this guide is to ensure the data sheet is completed in a consistent manner and an explanation of the various data items.

GENERAL WELL DETAILS

UNIQUE ID - the unique identifier for the well
LICENSEE - the licensee
FIELD - the field name
FINISHED DRILLING DATE - the date the well reached final total depth
SOURCE - the source of the casing corrosion information, usually the logging company and the type of log run (ie, Atlas-vertilog, Schlumberger-pipe analysis log)

LOG DATE - the date the log was run

CASING DETAILS - the details of each casing string that were logged should be recorded and if the string is mixed each appropriate size, density, type, etc, should be recorded

- Type - conductor, surface, intermediate, production, or liner
- Size - the outside diameter in millimetres rounded to the nearest one-tenth of a millimetre (ie, 177.8, 139.7)
- Density - the linear density or the average mass in kilograms per metre rounded to the nearest one-tenth of a kilogram (ie, 14.1, 23.1, 34.2)
- Grade - the appropriate grade as designated by the manufacturer (ie, K55, L80, S0095)
- Wall Thickness - the average wall thickness as specified by API or the manufacturer in millimetres rounded to the nearest one-tenth of a millimetre (ie, 7.0, 7.7, 9.2)
- Top Depth - the depth of the top joint of this particular density/grade of casing in metres measured from KB and rounded to the nearest metre
- Bottom Depth - the landed depth of the bottom joint of casing in metres measured from KB and rounded to the nearest metre

LOG INFORMATION

Total Number of Joints - the total number of casing joints logged

Depth Logged - the total depth logged measured from KB in metres rounded to the nearest metre

Joint Classification - the number of joints with indicated corrosion that falls within the specified range

Class 2 - number of joints with 20% to 40% wall loss
Class 3 - number of joints with 40% to 60% wall loss
Class 4 - number of joints with more than 60% wall loss
Penetration - number of joints with indicated or suspected holes or wall penetration

Number of Joints with

OD only - the total number of joints with outside diameter corrosion
ID only - the total number of joints with inside diameter corrosion
OD and ID - the total number of joints with both outside and inside diameter corrosion

Inside Surface Casing Corrosion - yes only if there is an indication of class 3 (40% to 60%) or greater corrosion in the casing being logged that is within the surface casing

Inside Surface Casing Penetration - yes only if there is an indication of a penetration or hole in the casing being logged that is within the surface casing

Corrosion Type - the type of corrosion indicated by the log, indicate yes for each type of corrosion that is present

IP - isolated pitting
CC - circumferential corrosion
TL - total length corrosion

Depth of Corrosion - the minimum and maximum depths in metres KB at which corrosion of Class 3 (40% to 60%) or greater corrosion is indicated by the log

Depth of Penetration - the minimum and maximum depth in metres KB at which wall penetration or holes in joints are indicated by the log

ADDITIONAL DETAILS

Cathodic Protection - yes only if cathodic protection of the casing was installed prior to the casing inspection log being run

Installation Date - the approximate date that the cathodic protection was installed on the casing

Mud Type - a brief description of the drilling fluid that was used to drill the well and was left behind the casing above the cement top

Additives - any significant additive in the drilling fluid

Cement Top - the actual or estimated cement top behind the casing in metres KB

Type - a brief description of the type of cement that was used to cement the casing

Bottom Hole Temperature - the bottom hole temperature in degrees Celsius

Geological Region - the appropriate geological region the well is located in (ie, South Central Mountains and Foothills
Northern Mountains and Foothills
Southern Plains
Central Plains
Northwest Plains and Deep Basin
Northeast Plains)

Geochemistry - (to be used at a later date)

Comments - any comments regarding the log or analysis

ERCB

Energy Resources
Conservation Board
640 Fifth Avenue SW
Calgary, Alta. T2P 3G4

CASING CORROSION DATA SHEET

UNIQUE IDENTIFIER 1 | | | | W /	LICENSEE/OPERATOR		
FIELD/OIL SANDS AREA NAME	ERCB FIELD CODE	FINISHED DRLG DATE	MO | D | YR
LOG SOURCE	LOG TYPE	LOG DATE	MO | D | YR

CASING DETAILS

TYPE	SIZE (mm)	DENSITY (Kg/m)	GRADE	WALL (mm)	DEPTH TOP (m)	DEPTH BOTTOM (m)

LOG SUMMARY

TOTAL NUMBER JOINTS LOGGED ____________

JOINT CLASSIFICATION CLASS 2 (21–40%) ____________

CLASS 3 (41–60%) ____________

CLASS 4 (61–80%) ____________

PENETRATION (81–100%) ____________

TOTAL DEPTH LOGGED ____________

OD–ID CORROSION JOINT WITH OD ONLY ____________

ID ONLY ____________

OD AND ID ____________

INSIDE SURFACE CASING

YES ______ NO ______ CORROSION ____________ PENETRATION ____________

CORROSION TYPE

YES ______ NO ______

ISOLATED PITTING (IP) ____________

CIRCUMFERENTIAL CORROSION (CC) ____________

TOTAL LENGTH CORROSION (TL) ____________

DEPTH

	TOP–MINIMUM (m)	BOTTOM–MAXIMUM (m)
CORROSION		
PENETRATION		

CATHODIC PROTECTION

YES ______ NO ______

CP DATE MO | D | YR

MUD TYPE ____________

ADDITIVES ____________

CEMENT TOP(m) ____________ TYPE ____________

BOTTOM–HOLE TEMPERATURE (^{0}C) ____________ GEOLOGICAL REGION ____________

COMMENTS ____________

DAP27 89–11

ERCB GUIDE TO COMPLETING CASING FAILURE DATA SHEET

A failure is defined as any loss of casing integrity; including casing damage that results in suspension of operations or in abandonment of the well.

The intent of the failure base is to document all known casing failures, to ensure that the information is consistent, readily available, and in a format to enable analysis. The data sheet should be completed as outlined below; however, if there is insufficient space additional information should be attached. Please try to fill in all details; however, if the information is not available leave the space blank.

WELL NAME - current complete licensed well name

DATE OF REPORT - date report completed

UNIQUE ID - the unique identifier for the well

LICENSEE/OPERATOR - the licensee of the well or the operator if different from the licensee

WELL STATUS - at the time of failure, fluid, and mode (ie, pumping oil well, producing gas well, salt water disposal, etc)

ERCB STATUS CODE - at the time of failure, 8-digit ERCB code

ERCB APPROVAL NO. - for thermal wells use the experimental or commercial ERCB approval number, for injection/disposal wells use the ERCB scheme approval number, for oil/gas wells leave blank

FIELD/OIL SANDS AREA NAME - for conventional wells use the ERCB designated Field name, for thermal wells use the ERCB designated Oil Sands Area name

ERCB FIELD CODE - the ERCB 4-digit field code

POOL/OIL SANDS DEPOSIT NAME - for conventional wells use the ERCB designated Pool name, for thermal wells use the ERCB designated Oil Sands Deposit name

ERCB AREA OFFICE - the ERCB area office that the well is located in

FINISHED DRILLING DATE - the date the well reached total depth

DATE FAILURE DETECTED - the date the casing failure was detected or verified

DATE FAILURE OCCURRED - the date the casing failure occurred or suspected date that it occurred

WELL TD - the measured total depth in metres KB true vertical depth

WELLBORE DEVIATION - the maximum deviation of the wellbore from vertical in degrees

GROSS PERFORATIONS - the gross perforated or open hole interval in mKB

H_2S % - the amount of hydrogen sulphide in the production fluids expressed as a % to one decimal (ie, 10 moles per kilomole is 1.0%, 0.052 mole fraction is 5.2%)

CASING DETAILS - only the casing string that failed should be recorded and if more than one string failed then both should be recorded; similarly if the string is mixed then the appropriate sizes/densities, etc, should be recorded

TYPE - the casing string that failed (ie, surface, intermediate, production, liner)
SIZE - the outside diameter in millimetres rounded to the nearest one-tenth of a millimetre (ie, 114.3, 177.8, 244.5)
DENSITY - the linear density or the average mass in kilograms per metre rounded to the nearest one-tenth of a kilogram (ie, 14.1, 23.1)
GRADE - the appropriate grade as designated by the manufacturer (ie, K55, L80, MN80, S0095)
SEAMLESS/ERW - seamless manufacturing process or electric resistance welding process
CONNECTION - the appropriate collar abbreviation should be used (ie, STC, LTC, BTC) and OS for oversize or SC for special clearance can be prefixed to the appropriate collar abbreviation (ie, OSBTC, SCLTC)
- for premium connections the manufacturers' designated abbreviation should be used (ie, VAM, CTS, FL-4S, etc)

DEPTH - Top - the depth in metres of the top joint (if surface use 0)
- Bottom - the depth in metres of the bottom joint

CEMENT DETAILS

AMOUNT & TYPE - the amount(s) and type(s) of cement used (if mixed cement blends or several stages run, list each)
CEMENT TOP - the estimated or actual cement top in metres, if cement returns to surface were received use 0 m
CEMENT EVALUATION LOGS - yes if any type of cement log was run (ie, CBL-cement bond log, CET-cement evaluation log, etc)
CEMENT LOG TYPE - list the cement log type(s) that were run

STEAM INJECTION

TEMPERATURE - the maximum and the last cycle temperature when the failure occurred in degrees Celsius

PRESSURE - the maximum and last injection pressure when the failure occurred expressed in megapascals to one decimal

INJECTION VOLUME - the total and last cycle steam injection volumes in cubic metres

INJECTION DAYS - the total and last cycle number of injection days

NUMBER OF CYCLES - the total number of steam/production cycles up to the failure to the nearest one-half (ie, 2.5, 5.0)

CYCLE DESCRIPTION - use the following appropriate number that describes the production/injection mode prior to casing failure

0 - Producing up tubing
1 - Producing up tubing with packer set
2 - Injection down annulus
3 - Injection down tubing or annulus
4 - Injection down tubing with packer set
5 - Injection down insulated tubing with packer set

CORROSION PROTECTION

CORROSION INHIBITION - yes only if there was an internal inhibition program in place prior to the failure

METHOD - the method of inhibition program in place either 1 - continuous or 2 - batch

CATHODIC PROTECTION - yes only if there was a cathodic protection system installed on the casing prior to the failure

CP DATE - the date the cathodic protection system was installed

FAILURE DETAILS

TYPE OF FAILURE - use the following code and wording for the most appropriate description (or best guess) of the failure

1 - leak - either in the connection or a hole in the tube
2 - part - a parted connection
3 - buckle - a compression failure of the connection or tube
4 - collapse - a collapse or restriction of the casing
5 - burst - rupture or split of the casing
6 - unknown
7 - other - only if the failure does not fit any of the above descriptions and explain in the Additional Details section

CAUSE OF FAILURE - use the following code and wording for the most appropriate reason (or best guess) for the failure

1 - external corrosion
2 - internal corrosion
3 - external and internal corrosion or unknown corrosion
4 - formation pressure
5 - stimulation or test pressure
6 - injection or disposal pressure
7 - external pressure or force (ie, formation shift)
8 - wear internally from drill pipe or tubing movement
9 - unknown
10 - other - only if the cause does not fit any of the above and explain in the Additional Details section below

ADDITIONAL DETAILS - describe the failure if the type or cause as listed above is "other", or if further explanation or details regarding the failure are known.

FAILURE DETECTION METHOD - the method the failure was first detected (ie, injection pressure/volume monitoring, surface casing pressure, casing pressure test, logging, etc)

FAILURE INSPECTION PROCEDURE - the procedure used to verify the casing failure (ie, logging, pressure testing, etc)

FLUIDS LOST - the estimated total volume of fluids lost due to the casing failure in cubic metres (including steam, oil, gas and water, or other fluids)

DEPTH OF FAILURE - the depth of the failure in metres KB and if there is more than one failure then the top of the highest (shallowest) failure

MULTIPLE FAILURES - yes only if there is more than one failure

FORMATION AT FAILURE - the formation and lithology at the point of the highest failure (ie, Grand Rapids oil sands, Lea Park shale, glacial till gravel)

CASING INSPECTION LOG - yes only if a casing inspection log has been run on the well (NB there is a separate data base for casing inspection log details)

REMEDIAL ACTION - describe any remedial action taken to repair or isolate the failure or put the well back on production/injection or abandon the well

REMEDIAL DATE - the date the remedial action was completed or the well abandoned.

ERCB
Energy Resources
Conservation Board
640 Fifth Avenue SW
Calgary, Alta. T2P 3G4

CASING FAILURE DATA SHEET

WELL NAME				REPORT DATE MO | D | YR |
UNIQUE IDENTIFIER 1 | | | | | W /		LICENSEE/OPERATOR		
WELL STATUS		ERCB STATUS CODE		ERCB APPR. NO.
FIELD/OIL SANDS AREA NAME		ERCB FIELD CODE		POOL/OIL SANDS DEPOSIT NAME
ERCB AREA OFFICE	FINISHED DRLG DATE MO | D | YR |	DATE FAILURE DETECTED MO | D | YR |		DATE FAILURE OCCURRED MO | D | YR |
WELL TD mKB TVD	WELLBORE DEVIATION	GROSS PERFORATION m TO		H_2S%

CASING DETAILS

TYPE	SIZE (mm)	DENSITY (Kg/m)	GRADE	SEAMLESS/ERW	CONNECTION	DEPTH TOP (m)	DEPTH BOTTOM (m)

CEMENT DETAILS

AMOUNT AND TYPE

CEMENT TOP (m)

CEMENT EVALUATION LOG YES ______ NO ______

LOG TYPE

STEAM INJECTION TEMPERATURE (^{0}C) MAXIMUM LAST CYCLE

PRESSURE (kPa) MAXIMUM LAST CYCLE

INJECTION VOLUME (m^3) TOTAL LAST CYCLE

INJECTION DAYS TOTAL

NUMBER OF CYCLES UP TO FAILURE

CYCLE DESCRIPTION (2–5)

CORROSION

INHIBITION YES ______ NO ______ METHOD 1/2 ______ CATHODIC PROTECTION YES ______ NO ______

CP DATE MO | D | YR |

FAILURE DETAILS

TYPE (CODE 1–7) ______ DESCRIPTION ______

CAUSE (CODE 1–10) ______ DESCRIPTION ______

ADDITIONAL DETAILS ______

FAILURE DETECTION METHOD ______

FAILURE INSPECTION PROCEDURE ______

FLUIDS LOST (m^3)

DEPTH FAILURE (mKB)

MULTIPLE FAILURES YES ______ NO ______

FORMATION/LITMOLOGY AT FAILURE

CASING INSPECTION LOG YES ______ NO ______

REMEDIAL ACTION ______

REMEDIAL DATE MO | D | YR |

DAP26 89–11

ERCB

**Energy Resources
Conservation Board**

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-20

CANADIANA
NOV 24 1989

TO: All Oil and Gas Operators

15 November 1989

COMPENSATION IN CASE OF WELL BLOWOUT

Although well blowouts are rare, difficulty has often been experienced dealing with the matter of compensation to the public for the damage that may result. Representatives of industry associations, the public, and the ERCB have developed the attached guidelines in recognition of the need for a process that would facilitate agreement. Although these guidelines were developed specifically for sour gas wells in the Pembina area, the Board believes they have much broader application and encourages all operators to adopt or improve on these for their operations throughout Alberta.

The Board wishes to gratefully acknowledge the leadership of the following associations in the preparation of these guidelines:

- Pembina Agricultural Protection Association
- Canadian Petroleum Association
- Independent Petroleum Association of Canada

E. J. Morin
Board Member

attachment

INTERIM GUIDELINE

FOR

RESIDENT COMPENSATION DURING

SOUR GAS (H_2S/SO_2)

WELL BLOWOUT EMERGENCIES

1.0 Introduction

2.0 Statement of General Policy

3.0 Policy for Sour Gas Well Blowout

4.0 Categories of Compensation
4.1 TIER I
4.2 TIER II
4.3 TIER III

5.0 Payment Procedures

6.0 Options for Resolving Disputes
6.1 Negotiation Between Claimant and Operator
6.2 Mediation
6.3 Arbitration
6.4 Litigation in the Courts

APPENDIX I Example of Daily Expense Claim

1.0 Introduction

This guideline for **Resident Compensation During Sour Gas Blowout Emergencies** was jointly developed by the Canadian Petroleum Association (CPA), the Independent Petroleum Association of Canada (IPAC), and the Pembina Agricultural Protection Association (PAPA) to address concerns of residents living in the Pembina Area of Alberta. It is intended for use by companies operating in the Pembina area and is suggested as a minimum standard for dealing with compensation claims of affected residents.

The guideline outlines a three tiered approach that is designed to facilitate fair and prompt compensation to those affected by an uncontrolled blowout related to drilling operations however, at present only two are described, Tier III, which deals with longer term impacts, as described below, is presently being discussed with PAPA. Once a procedure for dealing with this tier has been developed, it will be incorporated into and become an integral part of this guideline. This guideline also suggests various mechanisms to resolve disputes that may arise in connection with the negotiation of compensation claims.

2.0 Statement of General Policy

It is the Industry's policy that all persons who have suffered damage as a direct result of an industry operation should be fairly compensated by the operating company.

3.0 Policy for Sour Gas Well Blowout

Consistent with the above statement of general policy, the following draft policy outlines the Petroleum Industry's recommended approach for compensating those persons directly affected by an uncontrolled sour gas well blowout. It outlines a three tiered approach that is designed to facilitate fair and prompt compensation to those directly affected by an uncontrolled well blowout related to drilling operations and also suggests various mechanisms to resolve disputes that may arise in connection with the negotiation of compensation claims.

4.0 Categories of Compensation

A three tier approach for categorizing damages has been developed to facilitate fair and prompt compensation to persons directly affected by the release of H_2S and/or SO_2 from an uncontrolled sour gas well blowout. **It should be noted that agreement between resident and operators on settlement for any of these Tiers will not prejudice settlement on other Tiers, nor will it prejudice any other determination of responsibility arising out of an uncontrolled sour gas well blowout.**

4.1 Tier I deals with immediate out-of-pocket costs related to a justifiable evacuation from an individual's normal residence. These costs would be incurred as a direct result of a temporary relocation necessitated by an uncontrolled blowout. There would be no dispute as to cause and effect. These costs would preferably be paid directly by the company responsible (eg., pre-arranged hotel and meals) or the individual would be promptly reimbursed after incurring the costs and submitting a claim. Examples of costs that could be included in Tier I are:

- Cost of hotel accommodation.

- Cost of all meals while away from residence.

- Cost of transportation to and from evacuation centre/hotel and place of residence.

- Other reasonable daily expenses.

4.2 **Tier II** costs are those that are directly related to the uncontrolled release of hydrogen sulphide (H_2S) or sulphur dioxide (SO_2). These costs would normally be identified within a short period of time following a blowout, and would be for direct damages clearly caused by the release of sour gas. Reimbursement for these costs would be provided as soon as they were submitted and substantiated. Examples of Tier II costs are outlined as follows:

- Caring for house, barn, outbuildings and equipment during the evacuation period.

- Damage to house, barn, outbuildings, equipment (eg., damage to corrodibile metals and electrical components).

- Daily care of livestock/pets.

- Removal of livestock to a safe area (where safe, viable and with prior agreement).

- Death of livestock/pets.

4.3 Tier III costs are those associated with longer term impacts where cause and effect are not clear and which may require considerable investigation and documentation to verify. These costs have not been included within the scope of this policy. A procedure for determining the level of compensation with respect to Tier III costs is being developed and will be incorporated into this guideline when completed.

5.0 Payment Procedures

The process by which claims for Tier I and Tier II costs may be handled is as follows:

- Once an evacuation has been initiated, claimants should register at the designated evacuation centre as soon as possible. Registration will assist company personnel in contacting evacuees during or after the evacuation and in processing claims for compensation.

- Residents will be provided with an information package that outlines the compensation process and provides examples of compensable items under Tiers I and II. Operators are encouraged to establish a monetary Guideline for Tier I and II costs that are reasonable and fair to both parties.

- Claim forms which can be filled out and submitted for out-of-pocket expense reimbursement will be provided. An example of a Tier I expense claim form is provided in Appendix I.

- Wherever possible, pre-arranged direct payment of expenses will occur.

- As costs are incurred, claims forms can be filled out and submitted for compensation to the designated company representative.

6.0 Options for Resolving Disputes

As a result of the identification of the three tiers of costs mentioned above, it seems reasonable to predict that settling disputes with respect to costs will occur fairly easily at the Tier I level, will be somewhat more difficult at the Tier II level, and may be considerably more difficult at the Tier III level. Notwithstanding this general trend, it is desirable to describe a number of options for dispute resolution in such a way as to make it possible for the parties to agree to the utilization of any of the dispute resolution mechanisms identified. **It is generally in the interest of all parties that serious effort be made to resolve disputes by negotiation prior to proceeding with any of the other dispute resolution mechanisms described below.** To date, four dispute resolution mechanisms have been identified and a brief description of each follows:

6.1 Negotiation Between Claimant and Operator

This is a voluntary process and will most likely to be used in a situation where there is little dispute concerning cause and effect and the operator's obligation is clear.

To facilitate settlement, operators would identify a particular person with whom such settlements can be negotiated to ensure that the matter is dealt with appropriately. This would also provide some comfort to prospective claimants who would know that the person identified has the authority to deal promptly with the matter.

6.2 Mediation

Mediation is a process whereby the parties to a dispute agree to submit the matter in dispute to an independent mediator who assesses the merits of the matter and recommends an award. The mediator's decision is not binding, however, as the mediator approaches the matter from the viewpoint of a "reasonable" objective person, it likely represents a fair decision in the matter.

There are a number of groups prepared to provide mediation services on a fee basis and since it is a less costly and time consuming way to go than the following two alternatives, operators are encouraged to assume the costs of mediation if that is the mechanism of dispute resolution chosen by the parties.

A mediator will, of course, conduct a thorough review of the facts and quite often will set formal rules with respect to the submission and hearing of evidence. In situations where the facts are complex and the application of rules of evidence is appropriate, it may be more appropriate to utilize the court system than this method of dispute resolution.

6.3 Arbitration

Arbitration is a process whereby parties to a dispute agree that an independent third party is to review the matter in dispute and make a decision binding on the parties. Alternatively, the parties may each appoint one arbitrator to represent them on a panel, who in turn will appoint a third panelist mutually satisfactory to them to act as chairman, in which case the matter is decided by a majority vote of the panel of arbitrators. If the arbitrators appointed by the parties to the dispute are unable to agree as to the independent third party to act as chairman, there is provision in the Arbitration Act of the Province of Alberta to have the courts appoint the third party.

From the viewpoint of efficiency and quality of results achieved, it is often preferable to proceed via the single arbitrator than the panel unless the matter is a complicated one and it is expected that an arbitrator will need to interrelate with representatives of interested parties in order to make a reasonable decision.

As is the case with mediation, groups are available to conduct arbitrations. Decisions rendered in arbitrations are binding and are generally not subject to appeal in the courts. As arbitrations tend to be conducted by well known experts in their respective fields, they are usually more expensive than mediations. This is particularly so when there is a panel of arbitrators rather than a single arbitrator.

An arbitrator or panel of arbitrators will have to review the facts relating to the dispute and accordingly, arbitration may involve rules of evidence, etc., much the same as court proceedings.

Use of the arbitration process tends to promote adversarial relationships between the parties which is usually not the case with the previous two alternatives.

6.4 Litigation in the Courts

This is a formalized process involving lawyers and judges which has a tendency to be time consuming, costly and unpredictable in terms of results.

Even when a court decision is rendered, it is subject to appeal and does not have the finality of binding arbitration.

The process is very costly and the cost is compounded by the involvement if lawyers which are generally necessary to take full advantage of the potential benefits of the litigation system (eg., presentation of evidence, award of party and party costs, etc.)

Use of the court procedure also tends to promote adversarial relationships between parties. That is not the case with the first two alternatives.

The procedure for ascertaining facts in connection with a court dispute is examinations for discovery and exchange of documents. Examinations for discovery involve the examination of people involved in connection with the facts and the documents and accordingly, the procedure for extracting the facts is very expensive and time consuming.

As further delineation of Tiers I, II and III costs occur, the dispute resolution mechanisms described above may be expanded and considered in further detail.

APPENDIX I

Example of Daily Expense Claim

Tier I Expenses

Name of Operator

DATE

NAME

ADDRESS

TELEPHONE NUMBERS HOME

WHILE EVACUATED

LOCATION OF LAND (LSD)

ADDRESS DURING EVACUATION

EXPENSES (Please Attach Receipts)

- Accommodation (if not pre-arranged)
- Meals (if not pre-arranged)
- Transportation (__ KM @ __¢/KM)
- Other reasonable Daily Expenses

TOTAL

Name & Telephone Number of Company Contact

SIGNATURE

CANADIANA
DEC 18 1989

ERCB

Energy Resources Conservation Board

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter IL 89-21

TO: ALL DEVELOPERS AND OPERATORS OF COAL AND OIL SANDS MINING PROJECTS
ALL UNIONS REPRESENTING WORKERS AT COAL AND OIL SANDS MINING PROJECTS

11 December 1989

TRANSFER OF ELECTRICAL RESPONSIBILITIES, UNDER THE COAL MINES SAFETY ACT AND THE QUARRIES REGULATION ACT, TO THE ELECTRICAL PROTECTION BRANCH OF ALBERTA LABOUR

Alberta Occupational Health and Safety (AOHS), the Electrical Protection Branch of Alberta Labour (EPB) and the Energy Resources Conservation Board (ERCB) have had discussions concerning the transfer of responsibility for electrical inspections and electrical equipment approvals at mines and quarries from AOHS to the EPB.

At present the Coal Mines Safety Act and the Quarries Regulation Act address the authorization of electrical inspectors and the carrying out of the inspections. Since 1979 there has been an administrative arrangement whereby AOHS has carried out the electrical inspections using suitably qualified individuals authorized by the ERCB.

The proposed Mine Safety Regulation to be administered by AOHS now being considered through public review will, unless further revised, address all electrical matters related to mines and quarries.

Notwithstanding the fact that the Electrical Protection Act specifically exempts the application of the Act to coal mines, the tripartite discussions have concluded that it would be appropriate to have EPB personnel become involved in electrical matters at mines and quarries.

Accordingly, the following arrangements will be put into effect immediately:

1. The ERCB will authorize, under the provisions of the Coal Mines Safety Act and the Quarries Regulation Act, EPB inspectors as "Board representatives" for the purposes of administrating the electrical requirements of these two acts at mines and quarries.

2. During their initial inspections of mines and quarries, the authorized EPB inspectors will be accompanied by AOHS' electrical engineering consultant in order to ensure a smooth transfer of responsibilities. In addition, with respect to the underground coal mines, it is expected that the EPB inspectors will be accompanied by AOHS mining specialists until such times as the inspectors become familiar with the underground coal mine environment.

3. Applications for approval of electrical equipment, for use at mines and quarries, should be submitted directly to the EPB. In its review of such applications, the EPB will obtain, where necessary, advice from AOHS in relation to considerations for the mine environment, eg, where the equipment is to be used in an underground coal mine or in other hazardous areas.

4. Until the required legislation amendments can be completed, the three agencies will establish and maintain an accord which will address the administrative arrangements between EPB, AOHS and the ERCB.

N Strom

N. A. Strom
Vice Chairman, Energy Resources Conservation Board

Hugh Walker

H. Walker
Managing Director, Alberta Occupational Health and Safety

A. E. Kennedy
Assistant Deputy Minister
General Safety Services Division, Alberta Labour

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CANADIANA
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DEC 28 1989

ERCB

**Energy Resources
Conservation Board**

640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 89-22

TO: All Oil and Gas Operators 21 December 1989

ORPHAN WELLS - WELL LICENCE TRANSFERS

The Board has been concerned about the orphan well problem for some time. It has been working with Industry and Government to examine this problem in detail and to develop new legislation, policies, and procedures to minimize the number of orphan wells in the future and thus the financial burden on both the public and industry. Although the major effort has been directed towards the development of new measures aimed at minimizing the number of orphan wells, the Board is also emphasizing increased surveillance and enforcement under the existing legislation.

In particular, the Board has taken a much firmer position in dealing with the requirements under section 18 of the Oil and Gas Conservation Act which requires that the Board consent to transfers of well licences. In cases where the proposed transferee has a proven operating record in the Province of Alberta, the transfer application would normally be approved in a routine manner. However, this would not be the case where transfers involve a party or company that is unknown to the Board or whose operating performance raises serious doubts as to the appropriateness of transferring additional wells into its custody. In these situations, the Board will seek information to fully satisfy itself that the transferee is aware of and capable of fulfilling all of its obligations and responsibilities under the Oil and Gas Conservation Act and the Oil and Gas Conservation Regulations.

Specifically, the Board will require the transferee to provide documentation respecting its ability to carry out the financial, technical, and operational responsibilities that it will assume as the holder of a well licence, including the subsurface abandonment of the well and reclamation of the well site. Documentation respecting the well abandonment requirement may include a written commitment to abandon the well or a commitment to a specific plan to ensure that adequate funds are in place to cover the surface and subsurface abandonment and reclamation costs when they are required in the future. These requirements will be in addition to the Board's normal requirements for a well licence transfer.

If a transferee fails to satisfy the Board with respect to its ability to assume the full responsibilities of a licensee, then the Board will deny the transfer, even if a sale transaction has been completed. In these cases, the Board will advise both buyer and seller that the well licence transfer application has been denied and will instruct the existing licensee to continue its normal responsibilities for the well.

Operators are also reminded that until the Board approves the well licence transfer, the new owner or prospective owner does not have the right to produce the well or wells in question. Consequently, the Board may require that the well or wells be shut in pending the resolution of the transfer question.

Any questions respecting this matter should be directed to the Board's Well Licensing Section at 297-8554.

J.R. Nichol

J. R. Nichol, P.Eng.
Manager
Drilling and Production Department